

# NAVAL HEALTH RESEARCH CENTER

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## ***DOD HIV/AIDS PREVENTION PROGRAM: APRIL 2002 COUNTRY PROGRESS REPORTS***

***G. E. Larson  
S. Booth-Kewley  
K. Kelley  
L. Bakhireva  
R. A. Shaffer  
H. S. Kraft***

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**NAVAL HEALTH RESEARCH CENTER  
P O BOX 85122  
SAN DIEGO, CA 92186-5122**

**BUREAU OF MEDICINE AND SURGERY (M2)  
2300 E ST. NW  
WASHINGTON, DC 20372-5300**



**DoD HIV/AIDS Prevention Program:  
April 2002 Country Progress Reports**

DoD HIV/AIDS Prevention Program Office  
CDR Richard A. Shaffer, Program Manager  
LCDR Heidi S. Kraft, Deputy Program Manager

**Report Authors:**

Gerald E. Larson  
Stephanie Booth-Kewley  
Kevin Kelley  
Lioudmila Bakhireva  
Richard A. Shaffer  
Heidi S. Kraft

Naval Health Research Center  
P.O. Box 85122  
San Diego, CA 92186-5122

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## **Background**

In fiscal year 2000, the U.S. Congress funded the Leadership and Investment in Fighting an Epidemic (LIFE) Initiative to help prevent the further spread of HIV in sub-Saharan African countries and India. Although the majority of LIFE funds were allocated to prevention efforts in civilian populations (via programs managed by the U.S. Agency for International Development and the Centers for Disease Control and Prevention), an emphasis was also placed on HIV prevention programs in uniformed services. This emphasis stemmed from recognition of the importance of military and police cohorts from both public health and national security perspectives. Prevention efforts for African uniformed services were placed under Department of Defense (DoD) oversight, and the Naval Health Research Center (NHRC) was tasked to serve as the Executive Agent for the DoD HIV/AIDS Prevention Program in Africa. It was further determined that the program's policy guidance would come from the Office of the Deputy Assistant Secretary of Defense for Policy/African Affairs (DASD/AA).

Following the establishment of a Program Management Office at NHRC, DASD/AA identified the order of priority for DoD HIV/AIDS Prevention Program assistance among 42 sub-Saharan African countries. Countries with historic and important defense relationships with the United States received highest priority and were included in the first tier of countries. In addition, Angola was included because of the potential value of HIV programs in forging a new defense relationship. Countries named for the first tier were Nigeria, South Africa (including Lesotho and Swaziland due to geographic proximity), Ethiopia, Botswana, and Senegal. The second tier focused on countries that are key prospect states with respect to U.S. defense policy, including Kenya, Benin, Mali, Malawi, Ghana, Uganda, Rwanda, Zimbabwe, and Eritrea. The third tier included countries with contingency interests: Namibia, Gabon, Mozambique, Cote d' Ivoire, Tanzania, and Cameroon. The fourth tier focused on countries that would receive support as resources permit: Guinea-Conakry, Zambia, Congo-Brazzaville,

Democratic Republic of Congo (DROC), Niger, Djibouti, Mauritius, and Burundi. Finally, the fifth tier also focused on any remaining countries as resources permit, including Madagascar, Seychelles, Comoros, Mauritania, Equatorial Guinea, Guinea-Bissau, Togo, Gambia, Cape Verde Islands, Sao Tome, Central African Republic, Liberia, and Burkina-Faso.

To implement the mandate of the DoD HIV/AIDS Prevention Program, the Management Office and DASD/AA specified the following objectives:

- Train African uniformed services to teach their forces about HIV prevention
- Assist their development of policy for addressing the problem of HIV/AIDS
- Work to promote the uniformed services culture changes that are needed to impede the spread of HIV/AIDS
- Integrate with, and make use of, other U.S. government programs and those managed by allies and the United Nations

The DoD HIV/AIDS Prevention Program military cadre began in the fall of 2000 to conduct site visits for needs assessments in African uniformed services. (Needs assessments were coordinated through the Commanders-in-Chief and the relevant defense attaches.) An important initial goal of the site visits was to help the African countries establish HIV/AIDS points of contact and program offices, in part as a demonstration of the host country's commitment and its ownership of prevention activities. Specific activities and objectives were developed at the country level through consultation and partnership with country armed forces representatives, local health experts, NGOs, and other donor agencies.

In conjunction with the site visits, the Program Management Office developed an investment strategy that combines direct financial assistance for African uniformed services with support for NGOs whose HIV/AIDS prevention plans complement and strengthen those of the host country. To summarize the investment strategy: (1) Direct assistance is available when the DoD HIV/AIDS Prevention Program Manager reviews and approves an action plan (with a work plan and budget included) submitted by African uniformed services seeking financial support for HIV/AIDS prevention efforts, and (2)

Support for complementary efforts by NGOs is available through a competitive process in which proposals are invited (via solicitations) and subsequently evaluated on factors such as technical merit, experience of the organization, realism, country priority, and support of the host country. Irrespective of type of funding, the philosophy of the DoD Program Office is to support only those activities that assist countries in their own military or national strategic plans for HIV/AIDS prevention. Local experts and stakeholders carry out the majority of activities, and all activities are designed to strengthen existing efforts and institutions.

### **Results and Discussion**

As of April 2002, HIV/AIDS prevention efforts have been initiated with the following 22 African nations: Angola, Benin, Botswana, Cameroon, Democratic Republic of Congo, Eritrea, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mali, Namibia, Nigeria, Niger, Senegal, South Africa, Swaziland, Tanzania, Togo, Uganda, and Zambia. Appendix A includes background information and progress reports for these 22 nations.

**Appendix A:**  
**Progress Reports for African Countries Participating in the DoD HIV/AIDS**  
**Prevention Program**

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Angola

April 11, 2002

#### BACKGROUND

**Population:** Estimates of the Angolan population range between 10.5 and 12.5 million individuals, and estimated life expectancy ranges between 36 and 47 years.

**Predominant Languages:** Portuguese is the official Angolan language, but several other indigenous languages are spoken.

**Literacy Rate:** Angola has an estimated countrywide literacy rate of 42 percent, disproportionately distributed between men and women. Approximately 56 percent of men and 28 percent of women over age 15 can read and write.

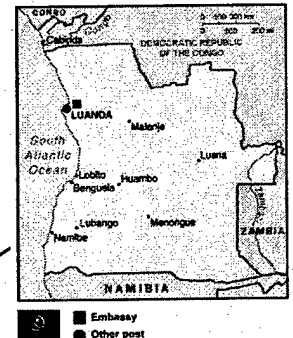
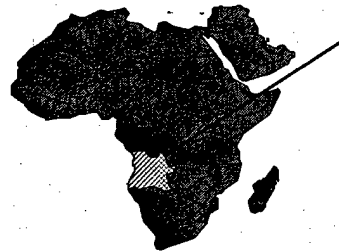
**Economy and Gross National Product:** Angola has experienced an ongoing civil war, and subsequently remains undeveloped economically. Eighty-five percent of Angola's population survives on subsistence agriculture, and the country produces only about \$1,000 per capita annually.

**Military Size:** Angolan military size is estimated at approximately 110,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates for Angola range from 2.8 to 4 percent of the population, with testing in specific hot spots revealing prevalence rates as high as 13 percent in specific groups. Identified significant risk factors in Angola include blood transfusions, high sexually transmitted infection incidence, and unprotected sexual contact. Forty-one percent of HIV infections in Angola are attributed to multiple partner heterosexual contact.

Women in Angola have low social and economic status, which places them at increased risk for infection. Women between the ages of 20-29 are the mostly likely group to be HIV infected.

Youths and children are also significantly affected by HIV/AIDS in Angola, where 48 percent of the population is under the age of 15. Mother-to-child transmission accounts for 11 percent of HIV/AIDS cases, and between 30 and 40 percent of infants born to



HIV-positive mothers become infected. The World Health Organization estimates that the cumulative number of youths orphaned due to AIDS through the end of 1999 to be 98,000.

**Military HIV/AIDS Information:** The Angolan Armed Forces have not conducted forcewide testing, so prevalence rates are not available; prevalence estimates range from 2 to 5 times those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff have visited Angola twice since October 2000. The first visit took place 2-14 December 2000 at Luanda for the purpose of an in-country assessment. Program staff met with Dr. Saul, Ms. Brewer, and Mr. Simmons from the United States Agency for International Development (USAID), as well as MAJ Edwards, Defense Attaché Office (DAO), where USAID's strategy for addressing HIV/AIDS in Angola was outlined. In addition, Program staff met with COL Ernesto, Angolan Armed Forces Medical Director, Director HIV Program; and Dr. Manuel, Director of Preventative Medicine, Angolan Armed Forces; the national plan for HIV prevention was presented and discussed. Further meetings took place with Dr. Stella, Director of the Epidemiology Surveillance Program, National Institute of Public Health for Angola, to coordinate interagency cooperation between his office and the Angolan Armed Forces. Finally, the Angolan Surgeon General, Tenente General Medico Raul Hendrick da Silva, provided Program staff with an overview of the HIV/AIDS situation in sub-Saharan Africa, and presented an Angolan national plan for action.

The second visit occurred 7-11 November 2001 at Luanda. Program staff attended the All-Africa Congress for Police and Military Medical Services conference in Angola and briefed military medical representatives from several Africa countries on the DoD HIV/AIDS Prevention Program. Staff coordinated visits with Dr. Bing, Charles R. Drew University, in-country subcontractor for the Program; Dr. Ashley, USAID Director of Projects; Ms. Fain, USAID HIV/AIDS Advisor; LtCol Langdorf, Defense Attaché Office; and Tenente General Medico Hendrick da Silva, Angolan Armed Forces Surgeon General. Meetings between Program staff, USAID representatives, and country representatives included planning to provide intragency cooperation for in-country HIV/AIDS prevention efforts.

Finally, LtCol De Deus, Deputy Manager of the HIV/AIDS Prevention Program in the Angolan Armed Forces, visited Los Angeles and San Diego 20-26 Jan 2002. Dr. Bing and Dr. De Deus met with San Diego Program staff on 22 January 2002, to outline additional funding requirements for the Angolan Armed Forces program.

**Country Response:** Angolan Armed Forces presented to the DoD Program a plan called Prevention and Control Program of Sexually Transmitted Diseases/HIV/AIDS in the Angolan Armed Forces. Outlined objectives included surveillance to determine the



epidemiological situation of sexually transmitted infections (STI) and HIV/AIDS in the Angolan military (particularly among young men), development of informational and educational activities to promote healthy practices, and promotion of a program of clinical syndromic diagnosis, and treatment and counseling about STI and infections associated with HIV. Other objectives included a program to guarantee the safety of blood and blood products, promotion of condom access and usage, and creation of a civilian-military alliance to combat HIV/AIDS.

**Direct Assistance From US DoD Program:** In response to requests from the Angolan military, the Program procured computers, printers, copiers, fax machines, televisions and VCRs, microphones and speakers, and projector screens for the Defense Attaché Office (DAO) in April 2001 for delivery to the Angolan Armed Forces. Maj Edwards took possession of the equipment and presented it to General da Silva in a ceremony.

Since that time, the Program has received an official request to have two infectious disease specialists and two laboratory officers from the US military travel to Angola and conduct training of clinicians and lab technicians. Details are currently being coordinated through the DAO. In addition, the Program has received a request to translate into Portuguese Family Health International-sponsored peer education materials for African Armed Services for use during Dr. Bing's upcoming visit and focus groups. Translation is in progress.

**External Contractor-Based Assistance:** Angola is the recipient of aid from an external contractor funded by the DoD Program. Charles R. Drew University was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in the Angolan Armed Forces. The program will include behavioral surveillance to access high-risk behaviors, training for individuals in clinical surveillance, and a behavioral prevention intervention program to educate new military recruits in HIV prevention strategies and high-risk behaviors.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military to military efforts will be coordinated through the DoD External Contractor, Dr. Bing, Charles R. Drew University.



## DoD HIV/AIDS Prevention Program

### *Annual Country Report: Benin*

April 11, 2002

#### BACKGROUND

**Population:** The population of Benin is estimated to range between 5.9 and 6.4 million; in-country life expectancy currently stands at approximately 50 years.

**Predominant Languages:** French is the official language in Benin, with several regional dialects as well as tribal languages also commonly spoken.

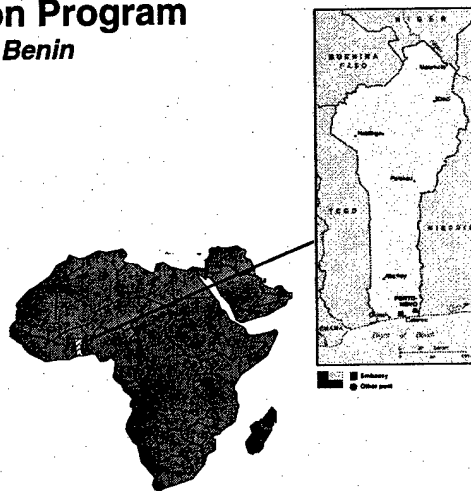
**Literacy Rate:** The in-country literacy rate is estimated at approximately 37 percent for people over age 15, and it is disproportionately distributed among men and women. Approximately 49 percent of adult males and 26 percent of adult females in Benin can read and write.

**Economy and Gross National Product:** Benin's economy is described as underdeveloped, concentrated primarily in agriculture (34 percent) and services (52 percent). Annual per capita income estimates range from \$380 to \$1,300.

**Military Size:** Benin's military size is estimated at 7,500.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates for Benin range from 2.45 to 4.5 percent; the number of adults believed to be living with HIV/AIDS ranges from 70,000 to 160,000, and HIV/AIDS cases are about equally distributed between men and women. Identified significant risk factors include early initiation of sexual activity for both males and females, significant poverty and illiteracy, gender status disparity, and lack of treatment and care for sexually transmitted infections. Eighty-two percent of HIV/AIDS infections in Benin occur through heterosexual sexual encounters.

A study conducted among male students at the University of Benin reported frequent high-risk behaviors (e.g., multiple sexual partners, intravenous drug use) in spite of adequate HIV/AIDS knowledge.<sup>1</sup> Another Benin study, also based on self-reports from men, indicates that condom use is associated with higher education level of the female partner.<sup>2</sup> The authors of the latter study suggested that education level increased



responsiveness to condom promotion. Accordingly, these authors emphasized the need for special efforts to target people with low education.

Research on commercial sex workers in multiple African countries demonstrated high levels of condom use among commercial sex workers in Benin (70 percent reported use of condom with the last client). The investigators speculate that high levels of condom use among sex workers has slowed the spread of HIV to the Benin general population. These findings highlight the importance of interventions among sex workers and their partners.<sup>3</sup>

An additional study, conducted by the London School of Hygiene and Tropical Medicine in Benin, focused on the association between the custom of prolonged postpartum sexual abstinence and extra marital sexual contacts by husbands. About 50 percent of surveyed men experienced postpartum abstinence in the past 12 months. In this group, 32 percent reported extra marital contacts compared with 20 percent among those who experienced no abstinence. The authors concluded that the potentially protective effect of postpartum abstinence is actually offset by an increased probability of high HIV-risk extra marital contacts by husbands.<sup>4</sup>

Youths and children in Benin are also significantly affected by HIV/AIDS, with 49 percent of the population under the age of 15, and between 30 and 40 percent of all infants born to HIV-positive mothers become HIV-positive. The World Health Organization estimated that 22,000 youths and children had been orphaned by HIV/AIDS by the end of 1999.

**Military HIV/AIDS Information:** The Benin military has not performed systematic screening of personnel, and prevalence statistics are therefore not available; among units given a behavioral and belief survey, approximately 60 percent indicated that they thought they were at high risk for infection.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** On 11-13 December 2000, Program staff visited Coutonou, Benin, for the purpose of an in-county assessment. Program staff met with Mr. McConnell, Deputy Assistant Secretary of Defense, African Affairs; Mr. Osho, Benin Minister of Defense; and Ms. Dinerstein and Dr. Conde from United States Agency for International Development (USAID); USAID's HIV/AIDS in-country prevention efforts were outlined. In addition, Program staff met with Dr. Lawani, Dr. Atadokrede, and Dr. Azondekon from Beninois Military Medicine regarding the status of HIV/AIDS in the Benin military.

**Country Response:** Beninois Military Medicine presented to the DoD Program a plan called Project for the Prevention of HIV/AIDS Infection in the Armed Forces of Benin.

Outlined objectives included promoting support for the fight against AIDS within the army by military and political authorities and development partners, and improved care and counseling for troops with HIV/AIDS and other sexually transmitted diseases. Other objectives included increased awareness among military personnel regarding methods of transmission and prevention of HIV, and promotion of healthy behavior among military personnel.

**Direct Assistance From US DoD Program:** The DoD HIV/AIDS Prevention Program has approved the budget and agreed to fund the following elements of the Beninois military prevention plan: awareness raising and promotional activities; research, training, and internships for army personnel; transportation; computers, electronic, audiovisual, and laboratory equipment; and an AIDS Information and Prevention Center at Coutonou.

In January 2002, the Program received an equipment requirement list from Dr. Azondekon from Beninois Military Medicine. With assistance from USAID, the list was translated and computers, printers, copiers, TV/VCR combinations, slide projectors, and other audiovisual support equipment were ordered and will be shipped via the diplomatic pouch. In addition, the Program has received an official request for laboratory equipment and reagents in support of the Benin Army's surveillance program. The list is being translated and the equipment will be procured and sent to the US Embassy for delivery within several months.

**External Contractor-Based Assistance:** None at this time.

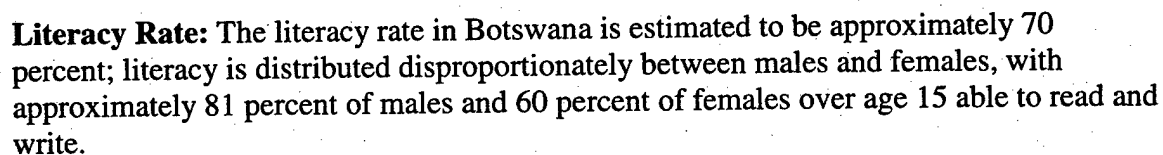
**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** The DoD HIV/AIDS Prevention Program has coordinated all assistance for Benin through the local USAID mission in Coutonou. The HIV/AIDS program managers there have been extremely helpful in coordinating communication between the Program Office, Benin Army medicine and HIV prevention representatives, and staff at the US Embassy who will assist with delivery of equipment and official liaison duties.

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3. Morison L, Weiss H, Buve A, Carael M, Abega S, Kaona F. Commercial sex and the spread of HIV in four cities in sub-Saharan Africa. *AIDS*. 2001; 4:S61-9.
4. Cleland J, Ali M, Capo-Chichi V. Post-partum sexual abstinence in West Africa: implications for AIDS-control and family planning programmes. *AIDS*. 1999; 13(1):125-31.



**Population:** The population of Botswana is estimated to range between 1.5 and 2 million people. Estimated life expectancy in Botswana currently ranges from 40 to 47 years, down significantly from a high of 67 years achieved prior to the HIV/AIDS epidemic.



**Military Size:** Botswana's military size is estimated at 8,000.

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Women are at increased risk in Botswana due to lower socioeconomic status (SES) and physiological vulnerability; surveys of selected groups of pregnant women revealed prevalence rates as high as 50 percent. Women's relatively low SES results in a lack of power for negotiating sexual relationships and safer sex. Moreover, cultural attitudes toward fertility -- such as a cultural imperative for a single woman to have a child to prove that she is fertile and the belief that childbirth cleanses a woman's womb -- strongly contribute to the non-use of condoms.<sup>1</sup> Other cultural factors contributing to high HIV/AIDS rates include a traditional Tswana medical belief that diseases such as sexually transmitted infections and HIV are primary "women diseases" (i.e., passed from a woman to a man),<sup>1</sup> significant numbers of women exchanging sex for amenities such as clothes and other gifts,<sup>1</sup> and numerous risk factors stemming from the use of traditional healers.<sup>2</sup> For example, a survey conducted among traditional healers in Botswana revealed gaps in their knowledge about HIV/AIDS and STIs: 22.2 percent reported believing that HIV is not a preventable disease (12.3 percent had no answer); 60.4 percent of traditional healers did not know what causes HIV, although some reported polygamous relationships (13.5 percent of respondents), contaminated blood (12.3 percent), and sex with the newly widowed (12.3 percent) as causes.<sup>2</sup>

Traditional healers also practice some techniques, such as sucking blood from a skin incision on the patient's body, utilization of sharp instruments, and use of bare hands, that put themselves and their clients at risk for HIV/AIDS.<sup>2</sup>

Youths and children are also being significantly affected by HIV/AIDS in Botswana, where 43 percent of the population is under age 15; currently between 25 and 33 percent of infants born to HIV-positive women in country will also become infected. In addition, the World Health Organization estimates that the cumulative number of youths orphaned due to AIDS through the end of 1999 to be 66,000. It is estimated that between 20 and 33 percent of all children in Botswana will be orphaned due to AIDS over the next decade.

According to the 1995 Botswana Adolescent Reproductive Health Survey, pregnancy was the most often mentioned risk of sexual activity for all age groups. Both males and females were well aware that sexual activity involves the risk of contracting AIDS and STIs (71 percent of females and 79 percent of males). Adolescents reported that teachers, peers, and parents have the largest influence of their reproductive health attitudes. The authors emphasized the role of schools in adolescents' education about reproductive health and HIV/STI prevention since they can reach students directly and indirectly by educating their peers.<sup>3</sup>

**Military HIV/AIDS Information:** The Botswana Defense Force (BDF) has not tested its force, so the prevalence rate is unknown. Recruits are screened for HIV both before entry and prior to any deployment outside of the country. The prevalence in the military is believed to equal or exceed that found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff have visited Botswana 3 times since November 2000. The first visit took place November 2000 for the purpose of an in-country assessment. The second visit took place 18-19 January 2001 at Gaborone. Staff met with Maj Hathaway, Defense Attaché; Maj Kinser, Office of Defense Cooperation (ODC); Mr. Merida, Environment and Health Programs; and Mr. Lange, US Ambassador to Botswana, to discuss the current status of in-country HIV prevention efforts. In addition, staff met with Dr. Kenyon from the CDC US Botswana (BOTUSA) program and received an overview of the agency's program; Dr. Sieben and Ms. Scheffers from United Nations Population Fund, who detailed recent research on sexual issues in-country; and Dr. Kahn from National AIDS Coordinating Agency (NACA), who coordinates all in-country donor/governmental/NGO HIV activities. Program staff met with Maj General Otsielle, Deputy Commander, BDF, and Capt Mojela, Head Social Work, BDF. Finally, Program staff visited and assessed an existing Voluntary Counseling and Testing Center in Gaborone.

The third visit to Gaborone by staff was 6-7 August 2001. Maj Cole of the ODC arranged a meeting with Col Matswha, Head, Medical Department, BDF, and Capt Mojela, to discuss both progress within the BDF HIV/AIDS Prevention Plan and the next steps. Staff also provided liaison between the BDF and the US CDC BOTUSA Program.

**Country Response:** The BDF presented to the DoD Program a comprehensive plan for HIV/AIDS prevention, which follows guidelines established by the Program. In addition the BDF Plan provides for coordination between the BDF and NACA. The BDF established a Brigadier-level HIV/AIDS Policy Director.

**Direct Assistance From US DoD Program:** In response to the HIV/AIDS prevention plan established by the BDF, funding has been awarded to support the plan through direct military-to-military assistance. Currently funding is provided to the ODC in Gaborone to support the BDF plan. First steps for use of the funding included providing training for BDF HIV/AIDS prevention personnel, providing equipment for training and office support, hiring an HIV/AIDS liaison in the ODC, and supporting the development of a voluntary counseling and testing program.

**External Contractor-Based Assistance:** Botswana is the recipient of aid from an external contractor funded by the DoD Program. ResourceLinC was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with the BDF. The program will include an emphasis on primary prevention (behavior modification, increased voluntary counseling and testing [VCT] and improved sexually transmitted infection [STI] care), capacity and infrastructure development (training of personnel and increased use of technology), adaptation of "off the shelf" HIV intervention tools, and an emphasis on a train the trainer approach.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** The US CDC has a very strong HIV/AIDS Program in Botswana (BOTUSA). A primary effort of the Program staff has been the coordination of the BDF program with the services available through BOTUSA.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Cameroon

April 11, 2002

#### BACKGROUND

**Population:** The population of Cameroon is estimated to range between 14 and 16 million people. Estimated life expectancy currently stands at approximately 55 years.

**Predominant Languages:** English and French are both official languages in Cameroon; in addition, 24 major language groups and regional dialects are also spoken.

**Literacy Rate:** The literacy rate in Cameroon is estimated to be approximately 63 percent; literacy is distributed disproportionately between the sexes, with approximately 75 percent of males and 52 percent of females over age 15 able to read and write.

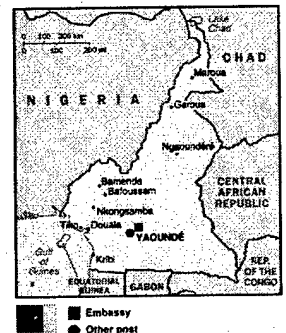
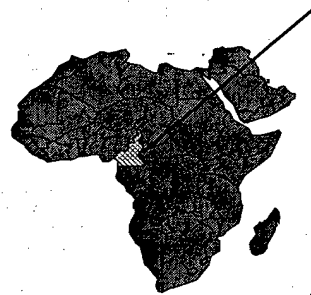
**Economy and Gross National Product:** Cameroon is described as a developing nation with significant oil reserves and favorable conditions for agriculture; the primary sectors of the Cameroonian economy are agriculture, industry, and service; per capita income is estimated at \$1,700.

**Military Size:** The Cameroonian military size is estimated at 27,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in Cameroon is estimated to be approximately 8 percent of the population having either HIV infection or AIDS. The number of people believed to be living with HIV/AIDS is 540,000; 22,000 of those people are children under 15 years of age. Identified significant risk factors include high-risk heterosexual contact with multiple partners and lack of adequate care and treatment of sexually transmitted infections.

Women are at increased risk in Cameroon due to lower socioeconomic status and physiological vulnerability; 56 percent of HIV-infected adults in-country are women.

Some social factors influencing the HIV epidemic were gleaned from focus groups conducted in Yaounde, Cameroon. Participants indicated that it is not socially acceptable for Cameroonian men and women to remain abstinent for a prolonged time period. Cameroonian girls are expected to be sexually active, and virgin girls tend to be marginalized by both men and women. Thus, many Cameroonian women need to engage



in sexual relationships to increase their social and economic status. The investigators who conducted the focus groups suggested that, given these circumstances, HIV prevention programs should promote condom use rather than attempt to reduce the number of sexual partners.<sup>1</sup>

Youths and children are also significantly affected by HIV/AIDS in Cameroon. The World Health Organization estimates that the cumulative number of youths orphaned due to AIDS through the end of 1999 to be 270,000.

**Military HIV/AIDS Information:** The Cameroonian Armed Forces have not performed forcewide testing since 1996, making current prevalence rates unavailable. During 1996, however, selective testing revealed a prevalence rate of approximately 15 percent, nearly 3 times that found in the general population; it is believed that HIV prevalence in the military continues to significantly exceed rates found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Staff from the DoD HIV/AIDS Prevention Program coordinate their efforts through the Defense Attaché Office (DAO) responsible for Cameroon.

**Country Response:** Cameroon is the recipient of aid from an external contractor funded by the DoD Program and approved by the DAO.

**Direct Assistance From US DoD Program:** None at this time.

**External Contractor-Based Assistance:** Cameroon is the recipient of aid from an external contractor funded by the DoD Program. Johns Hopkins University, Care and Health Program, was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with Cameroonian Armed Forces, Police, and Prison Wardens. The program includes curriculum development and education of personnel and recruits, a voluntary counseling and testing program, a program to increase sexually transmitted infection treatment, and a program of HIV surveillance.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts for Cameroon will be coordinated through the DoD External Contractor, Johns Hopkins University.

## **Reference**

1. Meekers D, Calves A. 'Main' girlfriends, girlfriends, marriage, and money: the social context of HIV risk behavior in sub-Saharan Africa. *Health Transit Rev.* 1997; 7: S361-75.



**Population:** The population of the Democratic Republic of the Congo (hereafter DROC) is estimated to range between 50 and 53 million people, and reported life expectancy ranges from 49 to 51 years.

**Predominant Languages:** French is the official language of DROC, with several others commonly spoken (Lingala, Kingwana, Kikongo, Tshiluba).

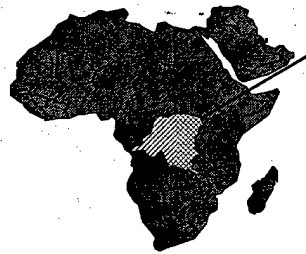
**Literacy Rate:** DROC has an estimated countrywide literacy rate of 77 percent, disproportionately distributed between males and females. Approximately 87 percent of men and 68 percent of women over the age of 15 in DROC can read and write.

**Economy and Gross National Product:** DROC, described as a country with extensive potential wealth, is experiencing an internal war, which contributes to a weakening and contracting economy. The country currently produces only \$600 per capita annually.

**Military Size:** There are no reliable estimates currently available for the size of the Congolese Armed Forces.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in DROC is estimated to be just over 5 percent of the population with either HIV infection or AIDS. The number of people believed to be living with HIV is 1.1 million; 53,000 of those are children under the age of 15. Identified significant risk factors include high-risk heterosexual contact both with multiple partners and with commercial sex workers. Groups of commercial sex workers tested in-country have had prevalence rates as high as 30 percent.

Women are at increased risk in DROC due to relatively low economic and social power as well as physiological differences; it is estimated that nearly 55 percent of infected adults in country are women, and prevalence testing of select groups of pregnant women indicated rates as high as 9 percent.



A study conducted among mothers in Kinshasa, Zaire, was designed to evaluate the impact of HIV counseling and testing. The main outcome measures were participants' knowledge of HIV/AIDS, their plans for notifying partners of serologic status, and actual partner involvement and contraception use 12 months later. At the time of initial counseling, general knowledge about HIV/AIDS was relatively high and the majority of women (70 percent) intended to notify their partners about their HIV status and involve them in counseling and testing. Intention to notify male partners was significantly higher among HIV-seronegative women (94 percent) compared with seropositive women (47 percent). The most common reasons for non disclosure were women's belief that notification would lead to divorce or accusation of infidelity. Follow-ups revealed that only 2.2 percent of women returned with their partners for joint counseling and testing despite much higher rates of expressed intentions to involve partners. Similarly, despite high rates of expressed intention to use condoms (70.8 percent among HIV-seropositive women and 52.6 percent among seronegative women), only 20 percent of HIV-seropositive and 17 percent of HIV-seronegative women reported condom use 12 months later.

According to the researchers, counseling motivated some women to use condoms and involve their partners in counseling and family planning, but their partners remained resistant. The authors suggested that further interventions should target men as well as women to successfully reduce heterosexual and perinatal HIV transmission.<sup>1</sup>

Youths and children are also significantly affected by HIV/AIDS in DROC. The World Health Organization estimates that the cumulative number of youths orphaned due to AIDS through the end of 1999 to be 600,000.

**Military HIV/AIDS Information:** The Congolese Armed Forces have not performed forcewide testing of personnel, making current prevalence rates unavailable. It is believed that the Congolese military population has HIV prevalence rates that exceed the national average.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Staff from the DoD HIV/AIDS Prevention Program coordinate through the Defense Attaché (DAO) responsible for DROC. The DAO has forwarded the country plan for HIV prevention in the Congolese Military to the Program Management Office. The plan is being analyzed for possible engagement with additional funds in fiscal years 02 and 03.

**Country Response:** DROC is being assisted through an external contractor approved by the DAO. In addition, the Program Management Office has coordinated with the Centers for Disease Control and the University of North Carolina (UNC)-Chapel Hill in the development of an expanded program for DROC involving multiple donors, with the goal of creating a model for health promotion within the context of conflict and demobilization. A Congo planning group is scheduled for Kinshasa in May 2002, and Program staff plan to attend.

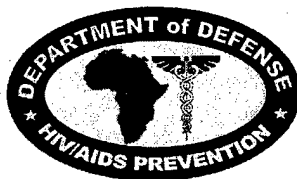
**Direct Assistance From US DoD Program:** None at this time. After the working group in May 2002, direct military-to-military assistance is likely to begin in coordination with DAO.

**External Contractor-Based Assistance:** DROC is the recipient of aid from an external contractor funded by the DoD Program. UNC, Chapel Hill, was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with the Congolese Armed Forces. The program will include testing to determine the baseline prevalence of HIV infection and HIV risk-taking behavior in the Congolese Armed Forces, and behavioral intervention through the use of "popular opinion leaders" to establish new norms for risk taking. The program will also include follow-up testing to determine prevalence and risk behaviors 6 months later.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts for DROC will be coordinated through DAO, with assistance as liaison officers from the external contractor, UNC-Chapel Hill, and CDC.

#### **Reference**

1. Heyward Q, Batter V, Malulu M, Mbuyi N, Mbu L, St.Louis M. Impact of HIV counseling and testing among child-bearing women in Kinshasa, Zaire. AIDS. 1993; 7: 1633-37.



**DoD HIV/AIDS Prevention Program**  
**Annual Country Report: Eritrea**  
**April 11, 2002**

**BACKGROUND**

**Population:** The population of Eritrea is estimated to range between 3.7 to 4.2 million people, and reported life expectancy ranges from 46 to 56 years.

**Predominant Languages:** Eritrea has several regional languages (Afar, Amharic, Arabic, Tigre, Kunama, and Tigrinya).

**Literacy Rate:** Eritrea has an estimated countrywide literacy rate of 25 percent; literacy rates by sex are not available.

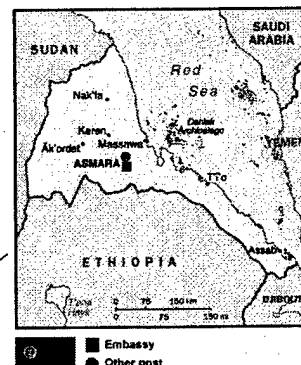
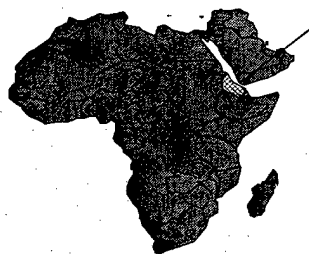
**Economy and Gross National Product:** Eritrea's economy is based primarily on subsistence agriculture, with 80 percent of the population involved in farming or herding. Estimates for Eritrea's annual per capita income range from \$230 to \$750.

**Military Size:** The Eritrean military size is estimated to be approximately 180,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in Eritrea is estimated to be 3.6 percent of the population with either HIV infection or AIDS. The number of people estimated to be living with HIV in Eritrea ranges from 49,000 to 70,000; separate statistics for children are unavailable, as are statistics on the cumulative number of youths orphaned due to AIDS. Identified significant risk factors include high-risk heterosexual contact with multiple partners (believed to be responsible for 90-95 percent of all in-country cases), perinatal transmission, and transmission through blood and blood products.

Women in Eritrea are presumed to be more vulnerable to HIV infection due to lower socioeconomic status, some gender-specific cultural practices, and physiological differences. However, separate data for in-country prevalence among women are not available.

A study conducted in Massawa, Eritrea, among four groups at high risk for HIV (female commercial sex workers (CSWs), former guerrilla fighters, truck drivers, and port workers) found that CSWs had the highest prevalence of HIV-1 infection (29 percent) followed by city-dwelling port workers (10 percent). High prevalence in Massawa CSWs



may be due to both elevated frequency of sexual encounters and the diversity of CSWs' clients in that area. Massawa is a seaport city visited by many foreigners, including, for decades, a large Ethiopian army contingent, truck drivers, sailors, vacationers, and entrepreneurs. CSWs consequently have frequent unprotected sex with these and other relatively unsafe partners.<sup>1</sup>

In the preceding study, guerilla fighters were found to have the highest prevalence of hepatitis B (23 percent). Risk factors, such as frequent physical contact of guerilla fighters with multiple ethnic groups in Eritrea, exposure to unsterilized and/or contaminated medical equipment, and direct transfusion of unscreened blood, could all contribute to high prevalence of hepatitis B in this group. The authors suggested that the comparatively low prevalence of HIV infection (in the face of high Hepatitis B prevalence) could be explained by the fact that guerilla fighters had few opportunities for promiscuity during the civil war.<sup>1</sup>

**Military HIV/AIDS Information:** The Eritrean Defense Force (EDF) has not performed forcewide testing of personnel, making current prevalence rates unavailable. Eritrea did test new recruits in 1997 and discovered an infection rate of 2.6 percent. Despite this relatively low rate, some health officials believe that the military population currently has HIV prevalence rates that exceed the national average.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff traveled to Accra, Ghana, 26 February - 2 March 2001 to participate in the Working Group for the Development of a Comprehensive HIV Prevention Package for the Uniformed Services of Africa. As part of the visit, Program staff met with Col Tseggai, Director, HIV/AIDS Prevention for the Eritrean Defense Force; and Dr. Mehtsun, Head of Eritrean Defense Forces Health Services. Program staff members were briefed on the current state of the epidemic in the country and the Eritrean HIV/sexually transmitted infection (STI) plan and were provided an outline of program objectives, which included creating a positive environment for behavioral change, decreasing HIV/STI, and more effectively distributing condoms to military personnel.

Program staff are also in close contact with the Security Assistance Officer in the Defense Attaché Office of the US Embassy, who is coordinating in country prevention efforts based on the EDF prevention plan, using funds sent directly to its office.

**Country Response:** The EDF submitted a prevention plan and budget via the United Nations Development Programme (UNDP) after the meeting in Ghana in early 2001. The plan was comprehensive and included a joint funding of the program by DoD and UNDP. Activities to be funded include national workshops, training of trainers in peer education, development of a peer education manual, training of one peer educator per unit, and initiation of a knowledge, attitudes and practices survey to monitor training progress.

**Direct Assistance From US DoD Program:** An in-country assessment visit was scheduled for 13 September 2001. Due to the political climate in the United States at that time, the trip was canceled. The plan was instead reviewed through phone and e-mail discussions with the Security Assistance Officer, who agreed to accept funding for the EDF prevention plan via a funds transfer to his office, and to coordinate logistics from there. On 17 October 2001, Eritrea was awarded funds by the DoD HIV/AIDS Prevention Program to implement its prevention plan via the US Embassy.

**External Contractor-Based Assistance:** Eritrea is the recipient of aid from an external contractor funded by the DoD Program. Population Services International was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with EDF. The program will include development of a military-focused Information, Education, and Communication campaign aimed at improving individual risk perception and belief in condom effectiveness and self-efficacy. The program will also include increased access to condoms for military personnel, capacity building of Eritrean military training ability, and evaluation of project impact and dissemination of best practices.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts for Eritrea will be coordinated through the Security Assistance Officer in the US Embassy.

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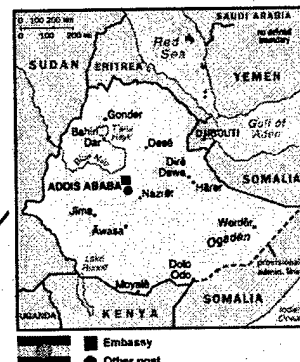
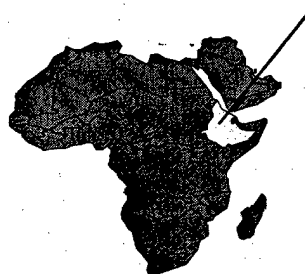




## DoD HIV/AIDS Prevention Program Annual Country Report: Ethiopia April 11, 2002

### BACKGROUND

**Population:** Current estimates for the size of the Ethiopian population range from 58 million to 66 million; the population of the country is relatively young, with approximately 47 percent of Ethiopians aged 14 years or less. Current life expectancy is approximately 45 years, a rate that has been significantly affected by the HIV/AIDS epidemic.



**Predominant Languages:** Amharic and English predominate in Ethiopia, with several local languages and dialects also common (Tigrinya, Orominga, Somali, and Arabic are the most common).

**Literacy Rate:** The in-country literacy rate is estimated at approximately 36 percent for adults (people over age 15), and it is disproportionately distributed between men and women. Approximately 46 percent of males over 15 and 26 percent of females in the same age group can read and write.

**Economy and Gross National Product:** The Ethiopian economy is still primarily based in agriculture, with agricultural production comprising half of the gross national product (GNP) and employing 80 percent of the workforce. GNP per capita income estimates range from \$120 to \$600.

**Military Size:** Ethiopian military size is estimated at approximately 250,000.

**Country HIV/AIDS Statistics and Risk Factors:** Prevalence estimates range from 3 million to more than 7 million Ethiopians living with HIV/AIDS; from 1.1 to 3 million are estimated to have developed AIDS. Some sources estimate that in urban areas 1 in 6 adults (18 percent) are infected. Identified significant risk factors include blood transfusions, unsafe injections, perinatal transmission, and unprotected heterosexual contact. Eighty-eight percent of all transmissions are acquired through heterosexual contact, and 87 percent of new infections are the result of "multiple sex-partnering" (nonmonogamous relationships.)

A study conducted by the Johns Hopkins University and the National Office of Population, Ethiopia, concluded that Ethiopian males were significantly more confident in their ability to engage in safe sex practices than were females. Abstinence and

monogamy were seen by participants as the most effective measures against HIV/AIDS, while condom use was thought to be less effective and, according to some, was even viewed a potential source of HIV/AIDS. In that study the key barriers to HIV/AIDS prevention in Ethiopia were identified as partner and community reluctance to talk about HIV/AIDS, inconvenience of preventive methods, and the high cost of preventive methods.<sup>1</sup>

A prospective cohort study conducted among factory workers in a suburban area of Addis Ababa concluded that knowledge of HIV/AIDS in general was high but was also strongly correlated with educational level. In addition, high-risk sexual behavior was more commonly reported by males than by females; 64 percent of males versus 6 percent of females acknowledged more than 5 sexual partners in their lifetime, and 16 percent of males versus 2 percent of females reported casual sexual partners in the past year. However, when asked about condom use, no females reported condom use in the last sexual act with a casual partner versus 18 percent of males. Perception of HIV risk was very low among participants. Only 30 percent of males with recent casual partners believed that they had put themselves at risk for HIV infection.<sup>2</sup>

Women are at increased risk in Ethiopia due to lowered socioeconomic status, some gender-specific cultural practices, and increased risk due to physiology; within this group, those ages 20-29 are the most vulnerable women in the country.

Youths and children in Ethiopia are also significantly affected by HIV/AIDS. The World Health Organization estimates that the cumulative number of youths in Ethiopia that have been orphaned after losing either their mother or both parents to AIDS to have been 1,200,000 from the beginning of the epidemic until the end of 1999.

**Military HIV/AIDS Information:** A survey sponsored by the US DoD HIV/AIDS Prevention Program among Ethiopian military recruits revealed substantial gaps in recruits' knowledge about HIV/AIDS: 12.2 percent of participants reported believing that HIV can be transmitted by kissing, 16.3 percent reported believing that condoms with lubricant do not protect against HIV, and 10.3 percent believed that a person who has HIV always looks sick. The survey also demonstrated recruits' risky behaviors: 22.6 percent reported having more than one sexual partner during last 12 months, and 27.4 percent reported being engaged in sexual intercourse during last 12 months with someone known only for a short period of time. Moreover, only 36.4 percent reported being tested for HIV, and only 75.4 percent reported the ability to always get condoms when needed.

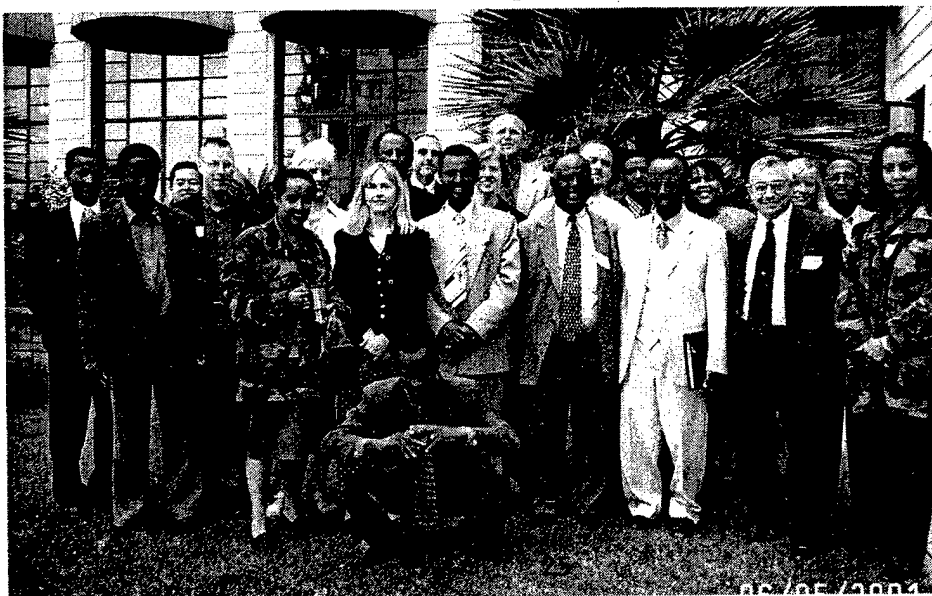
Prevalence rates among military personnel are not available, because Ethiopia has no reliable surveillance data for the military. It is known that approximately 15 percent of military hospital beds are occupied by patients with AIDS.

## ACTIONS TAKEN

**Contacts by Program Staff:** Program staff visited Ethiopia twice during the 2000-2001 year. The first visit took place 20-24 February 2001 at Addis Ababa for the purpose of an in-country program assessment. The visit included face-to-face meetings with Mr. Brady, in-country representative from the Centers for Disease Control (CDC), and Mr. Amirthanayagam from the United States Agency for International Development (USAID). Program staff also met with Dr. Yigeremu, Surgeon General of the Ethiopian Armed Forces, as well as Dr. Abraham, Commander, and Dr. Acahamelesch, Deputy Commander of Ground Forces Hospital, and staff from Armed Forces AIDS Hospice. As part of the assessment, Program staff toured and evaluated both the Armed Forces General Hospital and the Armed Forces AIDS Hospice.

The second visit occurred 4-9 June 2001. DoD HIV/AIDS Prevention Program staff gathered in Addis Ababa to facilitate development and creation of an Armed Forces plan to prevent HIV/AIDS transmission, and to develop the contents of country-specific prevention curriculum. A significant element of the planned prevention program for Ethiopia was identified during the assessment visit as culturally appropriate behavioral change communication materials. Development of these materials was begun during this second trip using survey research, and focus groups with active-duty male and female military people, health care workers, and military personnel living with HIV/AIDS. An American film crew taped events and interviews with soldiers for use in a video, which was later developed to supplement and enhance curriculum materials.

As part of the June 2001 visit, the Program hosted a conference with Ethiopian colleagues to detail the status of in-country prevention efforts. The following individuals attended: Dr. Miseanan, Medical Director, Tetek Rehabilitation Hospital; LtCol Kassaye, Ethiopian Air Force Health; Dr. Sisay, Tetek Rehabilitation Hospital; Dr. Yemane, CDC Ethiopia; Dr. Negussie, Population Media Center; Maj Dr. Yodit, Medical Director of the Ethiopian Armed Forces General Hospital; Dr. Tadesse, CDC Ethiopia, Dr. Yigeremu, Health Services, Ministry of Defense, Ethiopia; Lt Asheber, Health Services, Ministry of Defense, Ethiopia; LTC Kenny, Defense Attaché Office (DAO) Addis Ababa; Ms. Amirthanayagam, USAID; Mr. Abebe, Ethiopian Ground Forces Health Department; Dr. Tesfaye, Ethiopian Air Force Medical Director; LtC Dr. Achamyesh, Deputy Medical Director of the Armed Forces General Hospital.



In addition to the conference, Program staff traveled to and assessed the facilities and programs at Armed Forces General Hospital, Debrezait Air Force Base, the School of Medicine at the University of Addis, Armed Forces AIDS Hospice, and the Rehabilitation Center at Tatek Military Hospital.

Individuals and organizations briefed included the US government's Coordinating Committee for US activities in HIV/AIDS, and Dr. Negussie of Population Media Services.

Throughout this visit, several focus groups were conducted, with a total of 85 Ethiopian participants (21 female military personnel, 64 male military personnel, including 25 physicians). In addition, several interviews were conducted and taped, and 325 written surveys were administered and collected. Individual interviews were obtained from HIV-positive soldiers, HIV-negative soldiers, and from physicians involved in HIV prevention efforts and HIV/AIDS medicine.

**Country Response:** Ethiopia provided an outline of the Ethiopian Armed Forces plan. Outlined objectives included the development of a "train-the-trainer" program, and training for educators, counselors, policy makers, and health professionals. In addition, they proposed enhancements to mechanisms for condom purchase and distribution, for prevention media preparation (literature, posters), and for the procurement of drugs and lab material. Surveillance program objectives included the study of behavioral risk factors and HIV/STDs at 6 camps, development of sentinel sites to monitor trends in the epidemic, a forcewide randomized biological and behavioral survey, establishment of a surveillance system in the 6 military hospitals and the hospice, and a system to evaluate and monitor these programs.

In addition, the Ethiopian Armed Forces, drawing on a long history of using oral tradition to communicate culturally important, significant messages, created a traveling drama troupe to present plays designed to relay HIV/AIDS prevention messages to a military audience. The troupe was created to travel and perform for various audiences throughout the military, and their travel expenses are now being partially underwritten by the DoD Program.

**Direct Assistance From US DoD Program:** The DoD HIV/AIDS Prevention Program sent the first installment of funds to the DAO to establish a data collection and management office, hire a coordinator, and fund the HIV prevention drama troupe previously mentioned. In addition, the Program contracted with an outside video production company to create two videos based on the footage collected in June for use in HIV prevention in the Ethiopian Armed Forces. Technical assistance for the video and a matching curriculum manual was provided by contractors at the University of California, San Francisco, School of Medicine and within the US military HIV/AIDS Prevention Program. The Program also funded the travel of an Ethiopian Army public health officer to edit and provide cultural input to the video crew. The film was in final

editing as of January 2002. Additional funds will be transferred for the continuation of the Ethiopian military HIV prevention program, with coordination of the DAO and other in-country members of the US team, including CDC, USAID, and Family Health International (FHI).

**External Contractor-Based Assistance:** Ethiopia is the recipient of aid from an external contractor funded by the DoD Program. Johns Hopkins University was awarded a grant by the DoD HIV/AIDS Prevention Program to develop a voluntary counseling and testing (VCT) program and implement it in 3 military hospitals. In addition, Johns Hopkins University will train 5 Ethiopian military personnel to teach VCT and will also train 60-90 personnel to provide VCT services forcewide.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** The CDC is sponsoring a planned long-running serialized drama, designed to run on both radio and television, featuring characters and situations designed to develop HIV/AIDS awareness. Program staff met both with representatives from the CDC and Dr. Negussie from Population Media Services to discuss the possibility of including military characters in the drama. Program staff are also in close communication with FHI, USAID's primary contractor for military HIV prevention efforts. FHI has worked with the Ethiopian Armed Forces to create a multi-faceted plan funded by multiple donors.

## References

1. Witte K, Girma B, Girgre A. Ethiopia reproductive health communication project: family planning HIV/AIDS prevention formative and baseline study. Addis Ababa, Ethiopia: JHU/CCP and Ethiopia National Office of Population. 2001.
2. Sahlu T, Kassa E, Agonafer T, Tsegaye A, Rinke de Wit T, Gebremariam H et al. Sexual behaviors, perception of risk of HIV infection, and factor associated with attending HIV post-test counseling in Ethiopia. AIDS. 1999; 13:1263-72.



## DoD HIV/AIDS Prevention Program

*Annual Country Report: Ghana*

*April 11, 2002*

### BACKGROUND

**Population:** The Ghanaian population is estimated to range between 19.7 and 20 million people, and life expectancy estimates range from 55 and 60 years.

**Predominant Languages:** English is the official language in Ghana, but several other indigenous languages are spoken (Akan, Moshi-Dagomba, Ewe, and Ga).

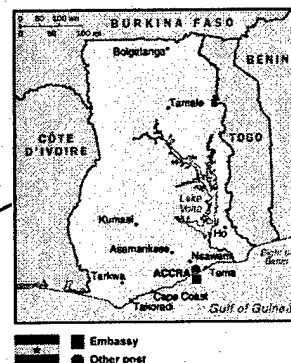
**Literacy Rate:** Ghana has an estimated literacy rate of 65 percent, disproportionately distributed between males and females. Approximately 76 percent of men and 54 percent of women over age 15 can read and write.

**Economy and Gross National Product:** Ghana has what is described as a developing economy with relatively well-developed export markets. However, 60 percent of the population continues to rely on substance agriculture, and annual per capita income estimates range from \$390 to \$1900.

**Military Size:** Ghanaian Military size is estimated at approximately 10,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates in Ghana range from 3.6 percent to 4.6 percent of the population with either HIV infection or AIDS. The number of people estimated to be living with HIV ranges from 340,000 to 400,000; approximately 14,000 of those are children under the age of 15. Identified significant risk factors include high-risk heterosexual contact both with multiple partners and with commercial sex workers, and a high incidence of sexually transmitted infections. Selected groups of sex workers tested in-country had prevalence rates as high as 76 percent.

Women are at increased risk for infection in Ghana due to less social and economic power as well as physiological differences; it is estimated that nearly 55 percent of infected adults in country are women. Itinerant women traders in Ghana are at particular risk for contracting HIV/AIDS. Since accommodation in hotels is not a usual practice for itinerant traders, accommodation offered by a local man may be welcomed and may result in a high-risk sexual encounter.<sup>1</sup>



Youths and children are also significantly affected by HIV/AIDS in Ghana, and youths make up 4 percent of all in-country HIV infections. The World Health Organization estimates that the cumulative number of youths orphaned due to AIDS through the end of 1999 to be 170,000; the number remaining alive and under the age of 15 was estimated to be approximately 119,000.

A survey conducted among Ghana youth indicated that friends and family members are their primary source for advice, support, reproductive health information, and family planning information. It was found that youths who believe that their peers are actively protecting themselves from AIDS are more likely to take such actions themselves. The authors emphasized the importance of recruiting peer educators for successful implementation of HIV education programs.<sup>2</sup>

Consistent with the preceding study, a survey of university students in southern Ghana found that students' attitudes about consistent condom and sexual behavior are highly influenced by the perceived attitudes of the students' "referent groups" (e.g., sexual partners, close friends, parents, and medical doctors). According to the study's authors, HIV/AIDS risk reduction programs should reinforce students' perceptions that referent groups value consistent condom use. Moreover, the involvement of salient referents in program activities was seen as crucial for the success of such programs.<sup>3</sup>

In-depth interviews with health care workers in Ghana revealed a gap between knowledge of HIV/AIDS and safe behaviors. Despite having adequate information, many health care workers fail to adhere to basic safety measures, such as the use of gloves, disinfections, proper handling of specimens, and adequate disposal of used items. The study also indicated that some patients challenge their HIV test results (or do not return for test results), thus creating additional problems for management of the disease.<sup>4</sup>

**Military HIV/AIDS Information:** The Ghanaian Military has not performed systematic screening of personnel, and prevalence statistics are therefore unavailable. Selective testing revealed a prevalence rate of 4.2 percent, and forcewide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff traveled to Accra, Ghana, 26 February - 2 March 2001 to participate in the Working Group for the Development of a Comprehensive HIV Prevention Package for the Uniformed Services of Africa. Program staff met with Col Apeagyei from the Ghanaian Military, who briefed them on the current state of the epidemic in the country and the current prevention strategy, which includes sexually transmitted infection management and prophylaxis, along with expanded peer education and voluntary counseling and testing (VCT) programs. Program staff traveled to Accra for a second visit in conjunction with a Marine Forces Europe medical exercise 10-18 November 2001. Staff members met again with Col Apeagyei, who stated that he

had sent a proposal, which has yet to be received by the Program office. He stated that his proposal had been funded by Family Health International (FHI), and that he would craft and submit another expanded plan with budget, via the Defense Attaché Office (DAO) at the US Embassy.

**Country Response:** Ghanaian Police Service presented to Program staff a plan titled "Ghana Police Service AIDS Control Program, Peer Education Training Module on STD/HIV/AIDS." Outlined objectives include HIV/AIDS risk factor education, training on sexually transmitted infection types, symptoms, and treatments, condoms and protection, communication workshops, and peer education training and techniques. The Embassy DAO has acknowledged receiving the plan from the Ghanaian Military, and it intends to forward from their office.

**Direct Assistance From US DoD Program:** None at this time; awaiting prevention plan from the Ghanaian Military, via the DAO at the US Embassy, for consideration of military-to-military assistance.

**External Contractor-Based Assistance:** Ghana is the recipient of aid from an external contractor funded by the DoD Program. Ghana Police Service AIDS Control Program was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with the Ghana Police Service. The program will include development of a peer education program to provide basic HIV/AIDS education to all junior police officers, VCT for police officers, promotion of condom use, and improved treatment-seeking for sexually transmitted infections in the police force. Program goals include reduction in the incidence of sexually transmitted infections and HIV, improved treatment-seeking for sexually transmitted infections, reduction in multiple partner behavior, increased use of condoms, increased acceptance and use of VCT, and increased HIV risk perception.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to military efforts for the Ghanaian Military will be coordinated through the DAO at the US Embassy, with assistance from FHI in country.

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4. Awusabo-Asare K, Marfo C. Attitudes to and management of HIV/AIDS among health workers in Ghana: the case of Cape Coast municipality. *Health Transit Rev.* 1997; 7:S271-80.



## DoD HIV/AIDS Prevention Program

### Annual Country Report: Kenya

April 11, 2002

#### BACKGROUND

**Population:** The Kenyan population is estimated to range between 29.5 and 30.7 million, and life expectancy estimates range between 47 and 50 years. The country has a very young population, with 70 percent of the total population under age 20.

**Predominant Languages:** English and Kiswahili are the official languages in Kenya, with several other indigenous languages commonly spoken.

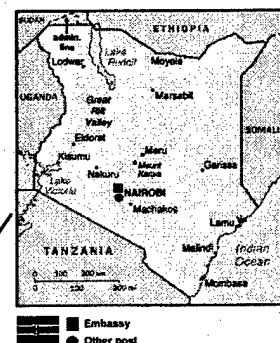
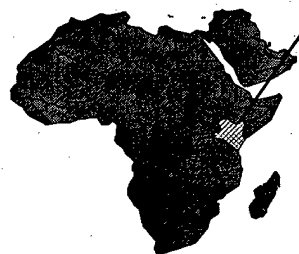
**Literacy Rate:** Kenya has an estimated literacy rate of 78 percent, disproportionately distributed between males and females. Approximately 86 percent of men and 70 percent of women over age 15 can read and write.

**Economy and Gross National Product:** Kenya has a developing, relatively diversified economy, with only 25 percent of the domestic product coming from agriculture. Services (62 percent) and industry (13 percent) make up the other sectors, and annual per capita income estimates range from \$340 to \$1,500.

**Military Size:** Kenyan military size is estimated at approximately 35,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates in Kenya range from 10 to nearly 14 percent of the population with either HIV infection or AIDS. The number of people estimated to be living with HIV is 2.1 million, and approximately 78,000 of those are children under the age of 15. Identified significant risk factors include high-risk heterosexual contact with multiple partners, a high incidence of sexually transmitted infections, and perinatal transmission. Annually, more than 30,000 infants born to HIV-positive women in Kenya become infected with HIV.

Women are at increased risk for infection in Kenya due to low socioeconomic status as well as physiological differences; it is estimated that 55 percent of infected adults in country are women, and young women of childbearing age are twice as likely to be infected as males in the same age group.



A study conducted in Nakuru District, Kenya, sought to determine perspectives and behavior of sexually active men and women with respect to family planning and sexually transmitted infections (STIs). Focus group discussions revealed men's willingness to use condoms during extramarital sex, paired with a resistance toward condom use with spouses. Male participants opposed condom use in marital relations because they believed that condoms reduce sexual pleasure, carry a negative stigma, and violate religious prohibitions. When women were asked what they would do to protect themselves from being infected by their spouses, one half of the women answered they would not do anything because of their fear that condom use leads to mistrust and unfaithfulness among spouses. The authors of the study argued that women's powerlessness strips them of autonomy in choosing a contraceptive method and protecting themselves from HIV and STIs. Since Kenyan men have such complete authority regarding reproductive health decision-making, their involvement in health programs is crucial.<sup>1</sup>

Despite men's professed willingness to use condoms during extramarital sex, other research in Kenya indicates that male extramarital sexual behavior puts both them and their wives at risk for STD/HIV infection. A study conducted among patients with STD-related complaints at the Langata Health Center in Nairobi, Kenya, reported that 55 percent of males had 2 to 4 sexual partners in the last year and 26.3 percent had 5 or more, while 75.1 percent of women reported having none or one sexual partner. The most recent sexual partner was a high-risk partner (commercial sex worker or casual contact) for 55 percent of males and only 11 percent of females, while spouse was the most recent partner for 58 percent females and only 13 percent of males. HIV seropositivity was associated with number of sexual partners for both men and women, and for women it was also independently associated with widowed or divorced marital status. The study also found that only 2.8 percent of males and 3.1 percent of females used a condom during their most recent sexual intercourse.<sup>2</sup>

The authors of the preceeding study made a number of recommendations for HIV prevention. First, as a potential way to encourage condom use, the authors suggested condom distribution not only in family planning clinics but also at locations where people initiate casual or commercial encounters. Second, they also recommended that a link be established between alcohol sales and condom promotions. Finally, since many jobs take men away from home for an extended time period during which they utilize casual partners and commercial sex workers, the authors advocated creation of low-income housing programs that allow married couples to stay together when the husband must temporarily relocate for work.<sup>2</sup>

A prospective study was conducted in Nairobi, Kenya, Dar es Salaam, Tanzania, and Port of Spain, Trinidad to determine whether HIV voluntary counseling and testing (VCT) helps reduce unprotected sexual intercourse. The results indicate that, while couples assigned HIV testing and counseling reduced their unprotected sex with partners also enrolled in the program, no differences were found in unprotected intercourse with non

enrolled partners. These findings highlight the importance of having both partners involved in HIV counseling and testing. The authors suggested that HIV counseling can provide a unique opportunity for couples to discuss sexual issues and their HIV serostatus, and negotiate risk-reduction plan in a safe setting. However, the authors also emphasized that HIV counseling and testing should not be provided without simultaneously offering the social, physical, and financial resources to cope with the disease, especially for women.<sup>3</sup>

Nine focus groups were conducted among high-risk groups for HIV infection (commercial sex workers, truck drivers and their assistants, and young men who live and work at the truck stops) at various sites along Trans-Africa Highway to evaluate the effectiveness of printed HIV/AIDS prevention campaign materials. Results indicated that while most prevention materials emphasize susceptibility to and severity of HIV infection, few materials promote constructive changes in beliefs and behaviors. Focus group participants wanted more information about the proper way to use condoms, along with suggestions for how to negotiate condom use with reluctant partners, accurate information on symptoms of AIDS, and advice on what to do once one has contracted HIV.<sup>4</sup>

Youths and children are also significantly affected by HIV/AIDS in Kenya, and youths make up nearly 4 percent of all in-country HIV infections. The World Health Organization estimates that the cumulative number of youths orphaned in Kenya due to AIDS through the end of 1999 is 730,000; the number remaining alive and under the age of 15 was estimated to be approximately 547,000.

**Military HIV/AIDS Information:** Relative to the civilian population, military personnel are believed to be at increased risk due to high mobility of troops, as well as the sexual culture found along the Trans-African Highway. The Kenyan Military has not performed systematic screening of personnel, however, and prevalence statistics are therefore unavailable.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff visited Kenya twice during the 2000-2001 year. In addition, staff attended the Working Group for the Development of a Comprehensive HIV Prevention Package for the Uniformed Services of Africa in Ghana in February 2001, where they met with Kenyan delegates, including Brigadier General Mulunga, Kenyan Surgeon General, and Col Mutungi, Kenya DoD HIV/AIDS Programme Director.

The first visit took place 6-10 December 2000 in Nairobi, Kenya, for the purpose of an in-country program assessment. The visit included face-to-face meetings with Ambassador Carson; Maj Meritt, Kenyan-US Liaison Officer; Col Rosenberg, Officer in Charge of the US Army Medical Research Unit – Kenya; Dr. Marum, Centers for Disease

Control (CDC) Technical Director; Ms. Vogel and Mr. Takona, United States Agency for International Development, and Dr. Emoungu, Country Director, Peace Corps. As part of the assessment, Program staff were briefed on the current status of in-country prevention efforts.

The second visit occurred 9-13 June 2001 in Nairobi. Program staff once again met with Maj Merrit and Col Rosenberg as well as Dr. DeCock, CDC Director; Dr. Likimani, Public Health Consultant; Brigadier General Mulunga; Col Mutungi, Kenyan DoD HIV/AIDS Programme Director, and Col Karua, Air Force Medical Director. The needs assessment and military HIV prevention proposal was presented and discussed. Major components included behavior modification programs, comprehensive surveillance programs, voluntary counseling and testing (VCT), programs to address mother-to-child transmission, tuberculosis (TB) control, and syndromic management and care for STIs.

**Country Response:** The Kenya Department of Defense provided a proposal for the prevention and care of HIV/AIDS in its military. Outlined objectives include the development of a surveillance system to monitor HIV/AIDS, TB, and sexually transmitted infections, including unlinked anonymous HIV testing for pregnant women and sexually transmitted infection clients; monitoring of sexually transmitted infections in men; monitoring of active cases of TB along with TB prevention and control; and monitoring of medical discharges and deaths among military personnel. Other objectives include data management and infrastructure strengthening; VCT programs, facilities, and staff; sexually transmitted infection prevention and control programs; prevention of mother-to-child transmission; and symptomatic HIV management.

**Direct Assistance From US DoD Program:** The Kenyan Military was awarded funds from the Program to support its prevention and care of HIV/AIDS proposal. In addition, the Program funded a full-time, in-country contractor for use by the Kenyan Military in its prevention efforts. Funding was provided through the Kenya Medical Research Institute via the US Army Medical Research Unit Kenya.

**External Contractor-Based Assistance:** Regents University was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and distribute a short film to increase adoption of HIV/AIDS prevention attitudes, beliefs, and behaviors among English-speaking military personnel in Kenya. However, at the time of the award, the Kenyan Department of Defense declined to have Regents University develop the film for its military members.

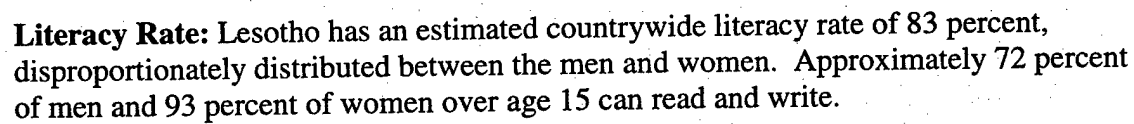
**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** The Kenyan Department of Defense proposal was written in close cooperation with the in-country CDC team and the US Army Medical Research Unit. The 2-year plan includes cost-splitting between the US DoD program and the CDC. At present, the Kenyan Military program is completely funded between these two sources. Continued close collaboration between CDC and our program is vital.

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2. Ndinya-Achola J, Chee A, Kihara A, Krone M, Plummer F, Fisher L. High HIV prevalence, low condom use and gender differences in sexual behavior among patients with STD-related complaints at a Nairobi primary health care clinic. *Int J STD AIDS.* 1997; 8: 506-14.
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**Population:** The population of Lesotho is estimated to range between 2 and 2.2 million, and reported life expectancy ranges between 49 and 56 years.



**Economy and Gross National Product:** Lesotho is a developing country with an economy based primarily in subsistence agriculture and the raising of livestock; annual per capita income estimates range from \$608 to \$2,400.

**Military Size:** Lesotho's military size is estimated at 2,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in Lesotho is estimated to be approximately 24 percent; 240,000 adults are believed to be living with HIV/AIDS in country. Identified significant risk factors include lack of treatment and care for sexually transmitted infections, and unprotected heterosexual contact with multiple partners, including commercial sex workers (CSWs).

Women are at increased risk for infection in Lesotho due to low socioeconomic status as well as physiological differences, and it is estimated that approximately 55 percent of infected adults in country are women.

Youth and children in Lesotho are significantly affected by HIV/AIDS, which is significant as 40 percent of the population is under the age of 15. The World Health Organization estimated that the cumulative number of youth and children orphaned in country by HIV/AIDS by the end of 1999 was 35,000.

A cross-sectional study in rural Lesotho (Mohale catchment area) has helped to clarify local risk factors for (and knowledge of) HIV/AIDS. AIDS awareness was found to be

relatively greater in women, among whom 91 percent had heard about AIDS versus 80 percent for men. Moreover, 85 percent of women knew that condoms could protect against HIV infection, versus 53 percent of men. False beliefs were common among the respondents. For example, 48 percent of women thought that AIDS could be transmitted through shared eating utensils, and 25 percent of men believed that sex with virgin could cure AIDS. Both men and women were found to have risky sexual behaviors: Only 3 percent of women and 17 percent of men had ever used condoms, and none of the 38 percent of men who had sex with a non-regular partner in the past 3 months used condoms during this period. The group that had the lowest level of knowledge about HIV/AIDS was youth, only 66 percent of who had heard about AIDS. An additional finding for young respondents was that only 30 percent believed that there was a way to protect oneself from AIDS. This study also revealed that adults and youth rely on different sources of HIV information. For adults, the main source of HIV/AIDS-related information was radio, followed by local clinics and other villagers. However, friends were the primary HIV/AIDS information source for adolescents, followed by school. Due to these differences in primary information sources, the authors suggest that HIV/AIDS prevention campaigns should target adults at clinics or via radio broadcasting, and reach adolescents through peer-driven education in schools.<sup>1</sup>

Specific regions of Lesotho bear an increased HIV/AIDS burden for a variety of reasons. For example, the initiation of the Lesotho Highlands Water Project (HWP)— a 30-year hydroelectric project - has resulted in labor force migration and high-risk behaviors in relatively isolated, remote areas where HIV was previously unknown. Despite an expanding number of CSWs, only 2.4 percent of HWP workers reported condom use on a recent survey. The authors of the study emphasize both the threat of HIV to surrounding villages and the need for aggressive work site public health prevention programs in the Lesotho Highlands.<sup>2</sup>

**Military HIV/AIDS Information:** The Lesotho Military has not preformed systematic screening of personnel, and prevalence statistics are therefore necessarily unavailable. Current forcewide rates are believed to be similar to those found in the civilian population, and military personnel are believed to be at increased risk due to high mobility of troops.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff discussed the development of a strategic plan for HIV/AIDS prevention in the Lesotho Defense Force with Ambassador Peterson 2000 November. In December 2001, Program staff informed the HIV/AIDS coordinator for the Lesotho Defense Force that funding was available for their program. In March 2002, Program staff visited Lesotho and was presented with a plan for HIV/AIDS prevention by the Lesotho Defense Force.



**Country Response:** The Lesotho Defense Force has developed a plan to respond to HIV/AIDS. This plan was submitted to the Program in March 2002.

**Direct Assistance From US DoD Program:** None at this time.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** None at this time.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Malawi

April 11, 2002

#### BACKGROUND

**Population:** The Malawian population is estimated to range between 10.3 and 10.6 million; life expectancy has recently dropped to an estimated 39 years due to the HIV/AIDS epidemic. Malawi has a very young population, with 55 percent of the total population under 15 years old.

**Predominant Languages:** English and Chichewa are the official languages in Malawi, with several other indigenous languages commonly spoken.

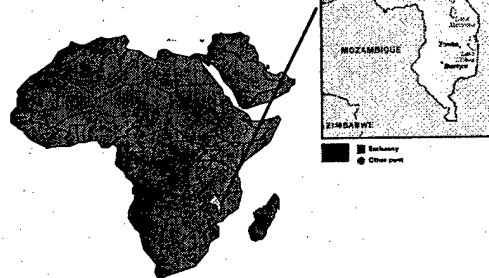
**Literacy Rate:** Malawi has an estimated literacy rate of 58 percent, disproportionately distributed between males and females. Approximately 73 percent of men and 43 percent of women over 15 can read and write.

**Economy and Gross National Product:** Malawi is described as one of the poorest countries in the world, relies predominantly on agriculture, and generates a per capita income less than half the sub Saharan average. Annual per capita income estimates range from less than \$200 to \$900.

**Military Size:** Malawian military size is estimated at approximately 20,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates in Malawi range from 10 percent to nearly 16 percent of the adult population with either HIV infection or AIDS. The number of people estimated to be living with HIV ranges from 800,000 to 850,000, and approximately 40,000 of those are children under the age of 15. Identified significant risk factors include high-risk heterosexual contact with multiple partners, a high incidence of sexually transmitted infections, and perinatal transmission. Approximately 30 percent of infants born to HIV-positive women in Malawi become infected with HIV.

Women are at increased risk for infection in Malawi due to low socioeconomic status as well as physiological differences; it is estimated that over 55 percent of infected adults in



country are women. Selected groups of pregnant women surveyed in 1998 were found to have prevalence rates ranging from 17 to 30 percent.

Youth and children are significantly affected by HIV/AIDS in Malawi, making up 5 percent of all in country HIV infections. The World Health Organization estimated the cumulative number of youth orphaned in Malawi due to AIDS through the end of 1999 to be 390,000.

Certain cultural practices among some ethnic groups in Malawi appear to contribute to HIV/AIDS proliferation.<sup>1</sup> Such practices include polygamy, sorority, and levitate. Polygamy is common in Malawi: One fifth of men over 40 years old report having multiple wives. Sorority is a practice wherein a deceased wife's younger sister is given to the widower to care for her dead sister's children. Similarly, levitate marriages customarily occur when a deceased man's male relative (often a brother) acquires his wife and children. If the decedent had AIDS, sorority and levitate practices can easily introduce HIV to a new family and thus start a "chain reaction".<sup>1</sup>

Peer-based HIV/AIDS interventions have been attempted in Malawi, with mixed success. In one example, peer educators were trained to provide HIV/AIDS information to bar-based commercial sex workers (CSWs) and their typical clients, long-distance truck drivers. The HIV/AIDS information was supplemented by a condom distribution program and training on safe sex negotiation skills. An evaluation of the program indicated that for CSWs, the presence of peer educators led to increased condom use with clients. However, no difference was observed in condom use within CSWs "personal" sexual relationships (i.e., regular non-paying partners.) Major criteria for CSW initiated condom use included the physical appearance of clients/partners despite widespread awareness that HIV-positive people can appear healthy. The proximity of peer educators was a area of concern for both sex workers and truck drivers. The participants collectively expressed a preference for peer educators from outside their own bar or trucking company.<sup>2</sup>

**Military HIV/AIDS Information:** The Malawian Military has not preformed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current force-wide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** An assessment visit to Malawi was scheduled for March 2001. This visit was canceled due to an inability to coordinate meetings with appropriate personnel. A follow-up visit was scheduled for September 2001. This visit was canceled due to the events of September 11, 2001. Program staff had a meeting with the HIV/AIDS staff from the military in December 2001.

**Country Response:** The Malawian Military is currently developing a prevention plan for submission to the Program.

**Direct Assistance From US DoD Program:** None at this time.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Program staff met with the in-country team from the Centers for Disease Control for Malawi in May 2001. Discussions began at that time as to coordination with the DoD Program once a plan is received from the military.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Mali

April 11, 2002

#### BACKGROUND

**Population:** The Malian population is estimated to range between 10.1 and 11 million people, and life expectancy estimates range from 47 to 54 years.

**Predominant Languages:** French is the official language in Mali, with several other indigenous languages commonly spoken.

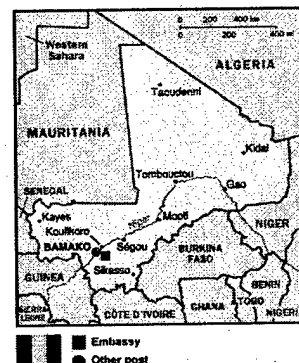
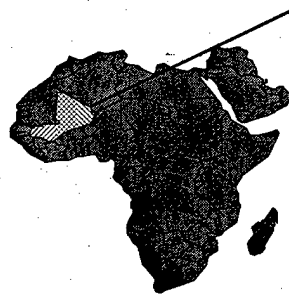
**Literacy Rate:** Mali has an estimated literacy rate of 31 percent, disproportionately distributed between males and females. Approximately 39 percent of men and 23 percent of women over age 15 can read and write.

**Economy and Gross National Product:** Mali's economy is described as underdeveloped, with 80 percent of the population engaging in substance agriculture. Annual per capita income estimates range from \$250 to \$850.

**Military Size:** The size of the military in Mali is estimated at approximately 20,000.

**Country HIV/AIDS Statistics:** Mali has one of the lowest HIV/AIDS prevalence rates in sub-Saharan Africa, estimated to be approximately 2 percent of the adult population with either HIV infection or AIDS. The number of people estimated to be living with HIV ranges from 89,000 to 100,000, and approximately 5,000 of those are children under the age of 15. Identified significant risk factors include a high incidence of sexually transmitted infections, and high-risk heterosexual contact with both multiple partners and commercial sex workers. Prevalence rates among commercial sex workers in Mali have ranged as high as 74 percent in some regions of the country.

Women are at increased risk for infection in Mali due to low socioeconomic status, low literacy rates, and physiological differences; it is estimated that nearly 55 percent of infected adults in country are women.



Youths and children are also significantly affected by HIV/AIDS in Mali, making up 5 percent of all in-country HIV infections. The World Health Organization estimated the cumulative number of youths orphaned in Mali due to AIDS through the end of 1999 to be 45,000.

**Military HIV/AIDS Information:** The Malian Military has not performed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current forcewide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff have been in contact with the West African Health Organization (WAHO), which is working to coordinate HIV prevention efforts in West African militaries. Because they are based in Mali and hope to have a conference there, Program staff contacted LCOL Kennedy of the Defense Attaché Office (DAO) at the US Embassy in Mali to assess his willingness to be involved. LCOL Kennedy attended a preconference planning meeting of the WAHO in Mali in summer 2001, and is fully supportive of the Program's plan to fund the WAHO's 2002 conference for military HIV prevention in West Africa to be held in Mali.

**Country Response:** WAHO submitted a plan for a large-scale conference on the coordination of West African militaries' effort in HIV prevention.

**Direct Assistance From US DoD Program:** Program staff have awarded funding to WAHO to carry out the regional efforts described above. Funds were transferred to Tulane University, New Orleans, LA, which has a cooperative agreement with WAHO. Tulane will utilize these funds to support the March 2002 conference.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Future efforts in Mali will be coordinated with DAO.



## DoD HIV/AIDS Prevention Program

### Annual Country Report: Namibia

April 11, 2002

#### BACKGROUND

**Population:** The Namibian population is estimated to range from 1.6 and 1.8 million people, with approximately 43 percent of inhabitants below the age of 14. Life expectancy estimates range from 40 to 51 years.

**Predominant Languages:** English is the official language in Namibia, but Afrikaans is the most prevalent. Several other languages are also commonly spoken.

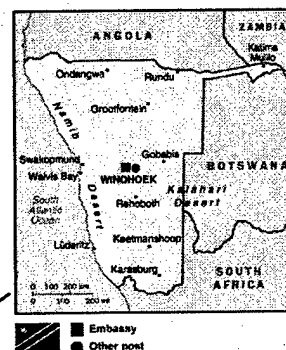
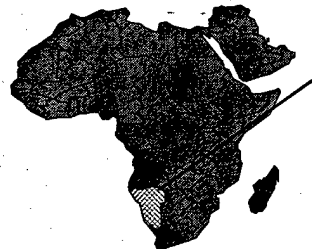
**Literacy Rate:** Namibia has an estimated literacy rate of 38 percent, disproportionately distributed between males and females. Approximately 45 percent of men and 31 percent of women over age 15 can read and write.

**Economy and Gross National Product:** Namibia has a well-developed mining industry and a per capita income exceeding the sub-Saharan African average. However, approximately half of the population continues to rely on subsistence agriculture for survival. Annual per capita income estimates for Namibia range from \$2,110 to \$4,300.

**Military Size:** There are no reliable estimates currently available for the size of Namibian forces.

**Country HIV/AIDS Statistics and Risk Factors:** It is estimated that 20 percent of the adult population in Namibia is either HIV infected or has developed AIDS. The number of people estimated to be living with HIV ranges from 150,000 to 180,000. Identified significant risk factors include high-risk heterosexual contact with multiple partners, a high incidence of sexually transmitted infections, perinatal transmission, and extensive migration.

Protracted wars, depressed rural economies, and high unemployment all contribute to Namibian within-country migration and the spread of HIV. In Namibia, women and children generally remain in impoverished rural areas while men seek job opportunities in urban areas. These transient male workers often acquire "town wives" and thus increase their HIV risk (via additional sexual partners.)



Women are at increased risk for infection in Namibia due to low socioeconomic status as well as physiological differences; it is estimated that 57 percent of infected adults in country are women, and selective surveillance of pregnant women has discovered prevalence rates as high as 34 percent. Moreover, between 30 and 40 percent of infants born to HIV-positive women in Namibia themselves become infected with HIV. The World Health Organization estimates the cumulative number of youths orphaned in Namibia due to AIDS through the end of 1999 to be 67,000.

Youths and children are also significantly affected by HIV/AIDS in Namibia, as youths make up more than 4 percent of all in-country HIV infections. Namibian adolescents' attitudes toward sex are a likely contributor to the spread of HIV/AIDS in this demographic group. According to a study involving youths ages 15 to 18, about 50 percent of participants believed that it is important for boys to have sex to feel like a man, 12 percent of males and 18 percent of females agreed that it is permissible for a boyfriend to strike a girl if she refuses to have sex with him, and 21 percent of females and 8 percent of males answered that they would get AIDS anyway regardless of any preventive measures.<sup>1</sup> After the study participants had been enrolled in a Western-based HIV risk-reduction intervention, a follow-up survey demonstrated significantly improved knowledge, attitudes, and intentions regarding HIV risk activities. The intervention delivered basic facts about reproductive health and HIV/AIDS risk behaviors, including alcohol/substance abuse, violence within relationships, cross-gender communication skills, age differences, and decision-making skills. The study appeared to support the use of successful Western HIV prevention programs in African settings.<sup>1</sup>

Some researchers advocate the restructuring of Namibian health care toward primary prevention of HIV/AIDS. Traditional healers could potentially also play a significant positive role in Namibian HIV/AIDS prevention programs.<sup>2</sup>

**Military HIV/AIDS Information:** The Namibian Defense Forces have not performed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current forcewide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff visited Namibia 11-14 November 2001 for the purpose of an assessment. The visit included meetings with Dr. Marcus, Advisor to the Minister of Defense, and Capt Muvangua, Clinical Office for HIV, where staff were briefed on the current status of in-country prevention efforts. Program staff also met with Defense Attaché LCOL Dawidowicz as well as Dr. Maloney of Population Services International (PSI), who is directing a Department of Defense (DoD) funded country effort.



**Country Response:** The Namibia Ministry of Defense submitted a prevention plan titled "Making Uniformed Services Healthy and Socio-Economically Productive in the Context of HIV/AIDS in Namibia and SADC Countries." Outlined objectives include the development and implementation of HIV/AIDS education and training for military personnel, development of guidelines for psychosocial health care, development of a program of voluntary counseling and testing, and development of a condom marketing strategy.

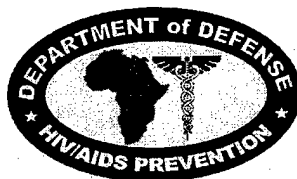
**Direct Assistance From US DoD Program:** None at this time; awaiting further country response via the Defense Attaché Office (DAO). Dr. Maloney from PSI will assist the Namibian Defense Forces in submitting requests for complementary funds to expand its program within the context of the prevention unit and condom distribution efforts.

**External Contractor-Based Assistance:** Namibia receives assistance from an external contractor funded by the DoD Program. PSI was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with Namibian Defense Forces. The program will include development of a social marketing campaign for condom use. Components of the campaign will include development of a educational/training video and dramas, as well as training and capacity building for a peer educator program.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts for Namibia will be coordinated through the DAO, US Embassy, as well as PSI, the DoD External Contractor.

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## DoD HIV/AIDS Prevention Program

*Annual Country Report: Niger*

*April 11, 2002*

### BACKGROUND

**Population:** The population of Niger is estimated to range between 10 and 10.4 million, with approximately 48 percent below the age of 14. Life expectancy estimates range between 41 and 49 years.

**Predominant Languages:** French is the official language in Niger, but Hausa and Djerma are also common.

**Literacy Rate:** Niger has a very low literacy rate, even by sub-Saharan African standards. The estimated literacy rate is under 14 percent, disproportionately distributed between males and females. Approximately 21 percent of men and 7 percent of women over 15 can read and write.

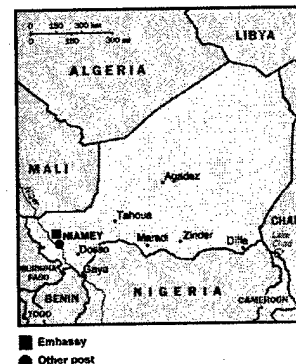
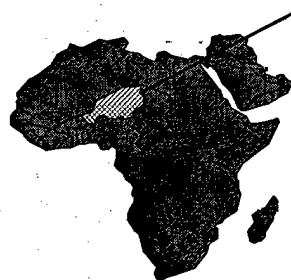
**Economy and Gross National Product:** Niger has what is described as a developing economy primarily centered on subsistence agriculture. Annual per capita income estimates range from \$200 to \$1,000.

**Military Size:** There are no reliable estimates currently available for the size of Niger Armed Forces.

**Country HIV/AIDS Statistics and Risk Factors:** Niger has one of the lowest HIV/AIDS prevalence rates in sub-Saharan Africa. It is estimated that just under 1.5 percent of the adult population in Niger is either HIV-infected or has developed AIDS. The number of people estimated to be living with HIV is 64,000, and approximately 3,300 of those are children under the age of 15. Identified significant risk factors include high-risk heterosexual contact with multiple partners and a high incidence of sexually transmitted infections.

Women are at slightly increased risk for infection in Niger due to low socioeconomic status as well as physiological differences, and it is estimated that 53 percent of infected adults in country are women.

The World Health Organization estimates the cumulative number of youth orphaned in Niger due to AIDS through the end of 1999 to be 31,000.



Despite the fact that Niger has a relatively low country wide HIV rate, prevalence remains a concern for certain sub-populations. A study conducted among commercial sex workers (CSWs) in Town Dikou in the Tenere Desert demonstrated that this sub-population has the highest rate of HIV infection (27.9 percent) in Niger. Town Dikou serves both as a military checkpoint when entering Niger from the north (e.g., from Libya, Algeria, and Chad), and as a frequent site of sexual contacts between CSWs and soldiers, truck-drivers, nomads, and settled inhabitants. Thus, certain desert zones of Niger and West Africa are at high risk for the spread of HIV even though the situation is often relatively worse in non-desert regions. <sup>1</sup>

**Military HIV/AIDS Information:** Niger Defense Forces have not preformed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current force wide rates are believed to be similar to those found in the civilian population.

### **ACTIONS TAKEN**

**Contacts by Program Staff:** None as of this time.

**Country Response:** The Armed Forces of Niger submitted a plan via the Defense Attaché Office (DAO) US Embassy, Niger.

**Direct Assistance from US DoD Program:** None at this time.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Future efforts in HIV prevention with Nigerian Armed Forces will be coordinated through the DAO, US Embassy.

### **Reference**

1. Gagnic G, Julvez J, Abari A, Alexandre Y. HIV-1 and HIV-2 seropositivity among female sex workers in the Tenere Desert, Niger. *Trans R Soc Trop Med Hyg.* 1998; 92: 29.



## DoD HIV/AIDS Prevention Program

### Annual Country Report: Nigeria

April 11, 2002

#### BACKGROUND

**Population:** Nigeria is Africa's most populated country, with total population estimates ranging from 109 to 127 million. Life expectancy estimates range between 50 and 55 years, and are declining due to the HIV/AIDS epidemic.

**Predominant Languages:** English is the official language in Nigeria; Hausa, Yoruba, Igbo, and Fulani are also commonly spoken.

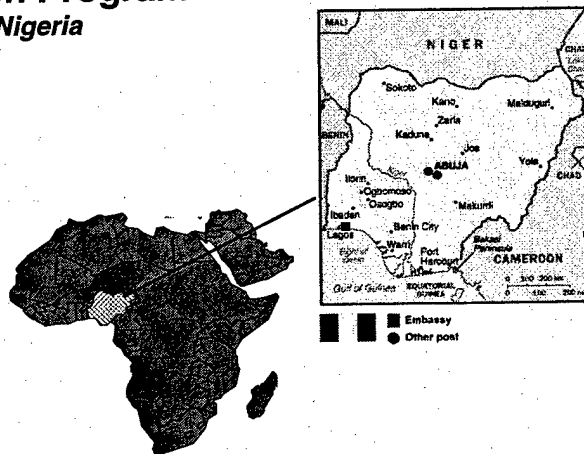
**Literacy Rate:** Nigeria has an estimated literacy rate of 57 percent, disproportionately distributed between males and females. Approximately 67 percent of men and 47 percent of women over age 15 can read and write.

**Economy and Gross National Product:** While Nigeria is described as a resource-rich country, political circumstances have resulted in a population that still relies primarily on substance agriculture for survival. Estimates of annual per capita income in Nigeria range from \$280 to \$950.

**Military Size:** Nigerian military size is estimated at approximately 150,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in Nigeria is estimated to be approximately 5 percent of the adult population with either HIV infection or AIDS. The number of people estimated to be living with HIV in Nigeria varies widely, ranging from 4 million to 5.7 million; of those, from 120,000 to 140,000 are children under the age of 15. Identified significant risk factors include a high prevalence of other sexually transmitted infections, high-risk heterosexual contact with multiple partners, and powerful cultural stigmatization of people with HIV/AIDS.

Women in Nigeria are vulnerable to HIV infection due to lower socioeconomic status and physiological differences, and it is estimated that 54 percent of infected Nigerian adults are women. Researchers in the state of Ekiti recently examined the relationship between Nigerian women's vulnerability to HIV and other sexually transmitted infections and their role in reproductive health decision-making, including decisions on family size, family planning, sexual activities, and health treatment. During a series of interviews,



many women in Ekiti claimed an active decision-making role: 55 percent of urban and 40 percent of rural women indicated that they are allowed to determine the number of children they bear, and the majority of women (90 percent of urban, 55 percent of rural) report that they and their husbands jointly decide the spacing of births. However, the research also revealed gaps between knowledge, beliefs, and behavior. For example, actual use of family planning methods was quite low in both urban and rural women (20 percent and 10 percent, respectively), despite the fact that the vast majority of women (95 percent of urban, 90 percent of rural) knew at least one family planning method. Furthermore, while the majority of women answered that they have the right to refuse sex (70 percent of urban, 75 percent of rural), only about half of all women believed that woman can ask an infected partner to use a condom.<sup>1</sup>

Youths and children are also significantly affected by HIV/AIDS in Nigeria, where 44 percent of the population is under the age of 15. In Nigeria, between 30 percent and 40 percent of all children born to HIV-positive women become infected themselves. In addition, the World Health Organization estimates that the cumulative number of youths orphaned in country due to AIDS through the end of 1999 to be 1.4 million.

Low rates of condom use in sexually active Nigerian youth undoubtedly contribute to the spread of HIV/AIDS in this age group. For example, interviews conducted in Southwest Nigeria to assess safe-sex practices indicate that most adolescents who perceive themselves at a high HIV risk never use condoms. The study's authors concluded that, while recent government and non-government organizations safe sex campaigns have worked well for adult Nigerians, the non usage of condoms among adolescents is a concern and additional efforts should be made to target this population.<sup>2</sup>

Consistent with the preceding finding, consistent condom use was reported by only 19.8 percent of sexually active students in a study conducted among Nigerian secondary schools. The same study also found that large numbers of students (67.6 percent of males and 32.4 percent of females) report having multiple sexual partners. The study participants were subsequently exposed to a school-based program of 6 weekly HIV education sessions consisting of lectures, films, role-playing, stories, songs, debates, essays, and condom demonstrations. At a 6-month follow-up assessment, there were significant differences between intervention and control students in knowledge of HIV transmission and prevention, tolerance of people living with AIDS, mean number of reported sexual partners, and frequency of sexual intercourse. However, only modest improvement in consistent condom use and condom use at last sexual intercourse was recorded.<sup>3</sup>

Data from two waves of the Nigerian Sexual Behavior and Condom Use surveys were used in recent research to examine additional factors influencing the consistency of condom use in the general population. Condom use was found to vary substantially by partner type, with the lowest condom use (2 percent of individuals) being reported for sex with steady partners and the highest condom use (63 percent) for occasional partners and

commercial sex workers. According to the study authors, infrequent condom use with spouses or concubines might reflect a cultural belief that condom use with a steady partner indicates adultery, promiscuous behavior, or lack of trust. Concern about unwanted pregnancy was, however, associated with condom use with a stable partner, while concern about HIV infection predicted consistent condom use with occasional partners. The authors concluded that HIV/AIDS prevention programs should focus on increased awareness of condom effectiveness.<sup>4</sup>

**Military HIV/AIDS Information:** Nigerian Armed Forces have not performed forcewide testing of personnel, making current prevalence rates unavailable. It is believed that the military population currently has HIV prevalence rates similar to the national average.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff traveled to Accra, Ghana, 26 February - 2 March 2001 to participate in the Working Group for the Development of a Comprehensive HIV Prevention Package for the Uniformed Services of Africa. As part of their visit, they met with Col Egbewunmi, Nigerian Army HIV Director; CDR Obisesan, Nigerian Navy HIV Director; and Group Captain Shaiby, Nigerian Air Force HIV Director. Col Egbewunmi briefed them on both the current state of the epidemic in the country and the current prevention strategy. Nigerian prevention strategy included delivering training materials and supplies, condoms, and trainers to all armed forces units.

**Country Response:** Nigerian Armed Forces submitted a prevention plan titled, "Nigerian Armed Forces Program on AIDS Control (AFPAC)." Objectives outlined in the report included efforts to develop awareness through annual sponsorship of an HIV/AIDS Week, implementation of HIV/AIDS education and training for trainers and military personnel, enhanced nutritional support of people with AIDS in medical facilities, training of health care workers in HIV management, and integration of HIV/AIDS into the general studies curriculum of military institutions. However, the plan that was submitted early on was described by Col Egbewunmi at the meeting in Ghana as "outdated" and he indicated that many of the activities were already being funded by other donors. He agreed to submit an updated plan and resource requirements list to the Program Management Office.

**Direct Assistance From US DoD Program:** Nigeria is being assisted through external contractors approved by the Defense Attaché Office (DAO). The Program Management Office still awaits the requirements list and prevention plan to begin consideration for military-to-military funding.

**External Contractor-Based Assistance:** Nigeria is the recipient of aid from two external contractors funded by the DoD Program. The Institute of Human Virology,

University of Maryland, was awarded a grant by the DoD HIV/AIDS Prevention Program to establish baseline data on HIV seroprevalence and incidence rates in the Nigerian Navy and to identify specific high-risk behaviors associated with the spread of HIV. In addition, the University of Maryland effort will provide a comprehensive training program to include HIV ethics and confidentiality issues, HIV counseling, and accurate diagnosis.

Lincoln University, Lincoln University, Pennsylvania, was also awarded a grant by the DoD Program to develop and implement an HIV/AIDS prevention program in conjunction with Nigerian Armed Forces. The program will include implementation of a three-stage project to create awareness and provide prevention education and counseling among Nigerian military personnel. Specific elements of the program will include conducting a Knowledge, Attitudes, and Practices survey, presenting an awareness seminar for top military and government officials, training of peer military educators in HIV/AIDS prevention, control, and counseling, and conducting prevention education workshops in military units.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts will be coordinated through the DAO, US Embassy, as well as the DoD external contractors, the University of Maryland or Lincoln University.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Senegal

April 11, 2002

#### BACKGROUND

**Population:** The population of Senegal is estimated to range between 9.2 and 10.3 million people. Estimates for average life expectancy range from 53 to 63 years.

**Predominant Languages:** French is the official language in Senegal; Wolof, Pulaar, Jola, and Mandinka are also commonly spoken.

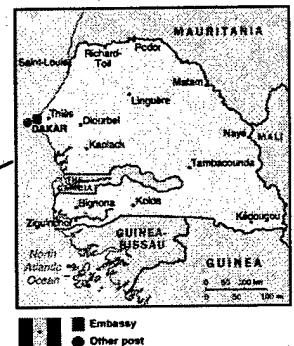
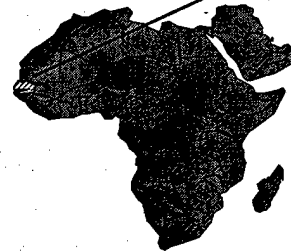
**Literacy Rate:** The literacy rate in Senegal is estimated to be only 33 percent; literacy is distributed disproportionately between the sexes, with approximately 43 percent of males and 23 percent of females over age 15 able to read and write.

**Economy and Gross National Product:** Senegal is a developing nation with a strong democratic government and relatively well-diversified economy; per capita income estimates range from \$540 to \$1,600.

**Military Size:** There are no reliable estimates currently available for the size of military forces in Senegal.

**Country HIV/AIDS Statistics and Risk Factors:** Senegal has one of the lowest HIV/AIDS prevalence rates in sub-Saharan Africa, estimated to be approximately 1.8 percent of the population with either HIV infection or AIDS. The number of people believed to be living with HIV/AIDS is 81,000; 3,800 of those are children under 15 years of age. Identified significant risk factors include high-risk heterosexual contact with both multiple partners and commercial sex workers. Testing among selected groups of commercial sex workers in Senegal revealed prevalence rates as high as 49 percent in 1997.

Women are at increased risk in Senegal due to lower socioeconomic status and physiological vulnerability, and their infection burden is increasing rapidly. According to the United States Agency for International Development (USAID), in 1996 32 percent of all HIV infections in Senegal were among women; by 1997, the last year testing was done, that figure had risen to 48 percent.





Youths and children are also significantly affected by HIV/AIDS in Senegal, and make up nearly 5 percent of all in-country infections. The World Health Organization estimates that, as of the end of 1999, the cumulative number of youths orphaned in country due to AIDS was 42,000.

An attempt to examine the psychosocial determinants of AIDS prevention attitudes in the rural area of Niakhar, Senegal, showed that most of the participants (83.4 percent of the men and 72.8 percent of the women) were familiar with HIV/AIDS. Moreover, 40 percent of the men and 58 percent of the women reported that they perceived themselves to be at risk for HIV infection. Preventive attitudes (including sexual faithfulness, greater care in partner choice, abstinence, condom use, and reduction in the number of partners) were more often reported by men (33 percent) than by women (11 percent). Among men, endorsement of preventive attitudes was positively associated with risk perception while women's attitudes were affected by optimism about future financial conditions, history of communication about AIDS with neighbors, good AIDS-related knowledge, and education. However, among both men and women, religiosity was inversely related to endorsement of HIV prevention views. Since approximately 75 percent of the Niakhar participants are Muslim and the vast majority of these individuals (86.2 percent) considered religion to be very important, involvement of religious leaders in AIDS prevention campaigns might be crucial for success. The authors also emphasized the role of radio in Senegalese prevention efforts, since the acquisition of AIDS information via radio was found to be positively associated with participants' risk perception. Finally, local neighborhood exchanges with peers appear to be an important source of communication about AIDS for women with limited access to other sources of information.<sup>1</sup>

**Military HIV/AIDS Information:** Senegalese Armed Forces have not performed forcewide testing of personnel, making current prevalence rates unavailable. It is believed that the military population currently has HIV prevalence rates higher than the national average, a presumption driven partially by in country sexually transmitted infection and hepatitis data. It is known that in the Senegalese Armed Forces, the prevalence of hepatitis B is roughly 2 times that found in civilian populations and sexually transmitted infections are 2 to 3 times more common.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff visited Senegal 25-27 October 2001 for the purpose of an assessment. Program staff traveled to Dakar and met with Ms. Holtz, University of Michigan Population Fellow; and Mr. Dioume, USAID HIV Program Manager, where USAID's strategy for addressing HIV/AIDS in Senegal was outlined. In addition, staff met with Dr. Mboup, University of Dakar, and Col Nyouky, Director of Medical Services, Senegalese Armed Forces; the national plan for HIV prevention was presented and discussed.

**Country Response:** A plan has been completed in coordination with USAID in Dakar, and is being submitted to the Program Management Office for review and analysis.

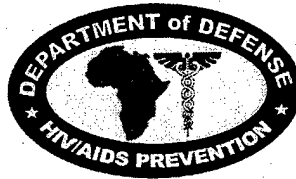
**Direct Assistance From US DoD Program:** None at this time; awaiting analysis of prevention plan and resource requirements list.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** All military-to-military engagements with Senegal will be undertaken in coordination with the Defense Attaché Office, US Embassy, and the in-country mission of USAID.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: South Africa

April 11, 2002

#### BACKGROUND

**Population:** The South African population is estimated to range between 40 and 45 million. Life expectancy currently stands at 48 years, and it is declining annually due to mortality associated with HIV/AIDS.

**Predominant Languages:** Although English predominates, South Africa also has 10 other official languages (Afrikaans, Ndebele, Pedi, Sotho, Swazi, Tsonga, Tswana, Venda, Xhosa, and Zulu).

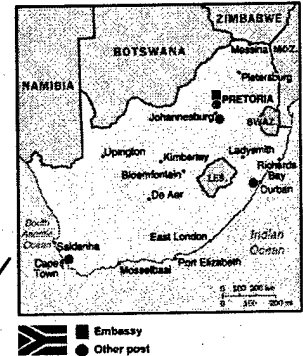
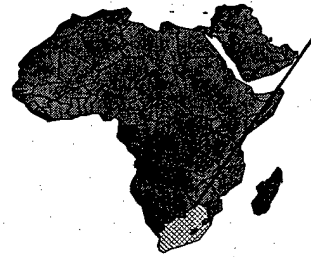
**Literacy Rate:** South Africa has a countrywide literacy rate of approximately 82 percent, distributed relatively proportionately between men and women.

**Economy and Gross National Product:** South Africa is described as a middle-income, developing country with significant resources, a well-developed infrastructure, and a substantial stock exchange. However, the South African economy is highly stratified, with 13 percent of the population living in first-world conditions and 53 percent in third-world conditions. The South African per-capita income is \$3,210.

**Military Size:** South African military size is estimated to be approximately 88,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates for South Africa vary widely, ranging from 8 percent to nearly 20 percent of the population, with as many as 4.2 million adults and children living with infection. An estimated 1,700 new infections occur daily. Identified significant risk factors in South Africa include perinatal transmission, a high prevalence of sexually transmitted infections, multiple partners, and unprotected sexual contact. Seventy-nine percent of all transmissions in South Africa are acquired through heterosexual contact, and more than 50 percent of all heterosexually sexually active men report multiple nonmonogamous relationships.

Women are at increased risk for HIV/AIDS in South Africa due to significant gender inequality, economic conditions, gender-specific cultural practices, and an increased risk due to physiology; 56 percent of all infected South African adults are female. Youths are also significantly affected by the epidemic in South Africa. Two thirds of all new in-country HIV infections occur among those ages 15 to 20. The World Health Organization estimates that the cumulative number of youths in South Africa orphaned due to HIV/AIDS is 420,000.



A study of sexually transmitted infection (STI) clinic patients in South Africa revealed inadequate awareness that HIV-positive individuals may appear healthy, that AIDS is incurable, and about viable prevention methods. Ninety-eight percent of the patients requested more information about HIV/AIDS.<sup>1</sup> An additional study revealed that a major concern among South African physicians is the lack of management protocols and policy guidelines regarding medical management of HIV-positive individuals.<sup>2</sup>

In an additional study conducted among STI clinic attendees in South Africa, only 37 percent of participants indicated condom use in last 6 months. Patient's condom use behavior was related to condom use communication, experience with previous sexually transmitted infections, and condom use self-efficacy (i.e., the belief that one can use condoms successfully).<sup>3</sup> A study conducted among commercial sex workers in Durban identified major obstacles to consistent condom use, including financial incentives for unprotected sex, clean and trustworthy appearance of prospective clients, and the threat of physical violence from clients.<sup>4</sup>

A randomized community intervention trial in KwaZulu Natal, South Africa, high schools showed that a drama-based education program had a greater impact on students' knowledge and attitudes about HIV/AIDS than written information.<sup>5</sup> Several additional studies in South Africa revealed that AIDS awareness messages placed on the outside of city buses, in informal sector shops, and delivered via traditional healers and family planning clinics can effectively disseminate AIDS prevention information.<sup>6-9</sup>

**Military HIV/AIDS Information:** The South African National Defense Force has not conducted forcewide testing to date, although HIV screening has been performed on specialized military groups.

Surveys conducted among South African military recruits revealed important misconceptions about HIV. One survey showed that 11.7 percent of respondents thought that AIDS could be cured, 6 percent believed that HIV/AIDS could not be prevented by condom use, 41.8 percent thought that HIV could be transmitted by blood-sucking insects, and 38.6 percent thought that HIV could be transmitted by transfusions using tested blood. In addition, 17.2 percent of respondents believed that HIV cannot be transmitted through homosexual intercourse, and 13.6 percent indicated that HIV cannot be transmitted through heterosexual intercourse. The recruits reported that they primarily obtained their HIV/AIDS knowledge from schools, health and social services, and printed media.<sup>10</sup>

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff visited South Africa 5 times since September 2000. The first visit took place in September 2000, when Program staff were accompanied by Mr. Hammon, Deputy Assistant Secretary of Defense Policy, African Affairs, and LTCOL Jordan, US European Command, J-4 Medical, to initiate an in-

country assessment and establish a collaboration with the South African Medical Health Service (SAMHS). Critical discussions were conducted with the SAMHS Surgeon General and the HIV/AIDS Coordinator. One strategic decision by the SAMHS Surgeon General was to establish a multi-disciplinary HIV/AIDS Advisory Council to enhance and broaden its HIV prevention efforts.

The second visit occurred in November 2000, and Program staff participated in the Fourth Annual US/Republic of South Africa Defense Conference, which included an informational talk on HIV/AIDS. This trip also afforded another opportunity to review the SAMHS HIV Prevention Plan, which was being developed.

The third visit occurred 15-17 January 2001 at Pretoria. Program staff met with the South African HIV/AIDS Advisory Council to discuss and establish elements of its operational plan for HIV prevention. Present with Program staff were LtCol Engelbrecht, Dr. Archary, Brigadier General Eygelaar, Col Stretcher, Col Harrison, and Col Jacobs. The meeting established a name for the program (Masibambisane) and set a media launch date. In addition, the role of outside agencies in the campaign was established, a plan to ensure Internet access was created, and a framework for program monitoring and evaluation was developed.

Visit four occurred 6-9 May 2001 in Durban to discuss current status and plans for the collaborative effort between the DoD Prevention Program and SAMHS. Present with Program staff at the meetings were LTCOL Nicholson, US Embassy Office of Defense Cooperation, Col Harrison and LtCol Engelbrecht. During the visit, formal procedures for the purchase of audiovisual equipment were developed, the budget for the entire collaborative effort was finalized, and procedures for approval of funding requests were established. In addition, plans for the media event to kickoff the SAMHS HIV/AIDS Prevention Plan and the plan itself were reviewed.

The final visit occurred in August 2001. The emphasis during this visit was to review the progress of Masibambisane, including the recent media launch, and to establish procedures to begin implementing the regional programs.

**Country Response:** South Africa, in conjunction with the DoD Prevention Program, created a comprehensive plan to address HIV/AIDS in its armed forces. Specific components of the plan include a sustained HIV in the Workplace Program in every unit of the South African Department of Defense (DoD), a provision for condom distribution, peer education, and an educational program emphasizing general awareness of HIV and sexually transmitted infection prevention as well as occupational transmission of HIV prevention. In addition, the South African plan incorporates a system for monitoring and evaluating programs aimed at HIV prevention. Key indicators identified for monitoring include evaluation measures of all aspects of training, performing a baseline Knowledge, Attitudes, and Practice study, and establishing baseline epidemiological parameters.

The media program will be called the Beyond Awareness Campaign. Beyond Awareness, an educational campaign designed to achieve behavioral change within the military, will be implemented in four phases spread over a year. The first phase will occur during the initial two months and involve the exposure of military personnel to prevention messages; the campaign theme and DoD HIV logo will be introduced at this time. The second phase will occur during the next 4 months, and will add behavioral choice information to the message. Phase three will introduce and emphasize organizational support for both HIV-positive and HIV-negative personnel and reiterate prevention messages, while phase four will enforce healthy choices and alternatives. Throughout phase four, voluntary testing will be encouraged for all service members. Military facilities throughout the country are already performing voluntary counseling and testing (VCT); these facilities will be enhanced, and training will be provided to ensure uniformity of service.

Members of the South African military will be continually updated regarding HIV information, management processes, policy and strategy through the use of workshops, conferences and meetings, staff visits, and bilateral exchanges between US and South African military officials. In addition, to improve coordination throughout the HIV management structure, computer equipment is being acquired and an Intranet developed to facilitate communication.

A comprehensive training program has been established to develop regional master trainers and HIV educational officers. In addition, all SAMHS personnel will be trained to provide standardized HIV counseling throughout the military, enhanced VCT services, standardized HIV/AIDS treatment for personnel and dependents, and occupational exposure guidance. Peer group educators will be trained to provide education and to support HIV workplace programs.

Finally, because gender inequality has been implicated in the spread of HIV throughout Africa, an educational program to support the empowerment of women will be included.

**Direct Assistance From US DoD Program:** In addition to funding assistance for the Masibambisane campaign, the Program funded two staff members in Pretoria to assist the South African National Defense Force HIV/AIDS Prevention Program.

In addition, two of the key medical personnel on the HIV/AIDS Advisory Council for SAMHS were funded for site visits to the United States. Dr. Archary attended and was a speaker for the May 2001 Naval Environmental Health Command Conference in San Diego. She also rotated through the Navy Medical Center San Diego (NMCS) HIV Unit to gain familiarity with the procedures developed by DoD for HIV-positive personnel. LtCol Engelbrecht was funded to attend the American Public Health Association annual meeting in Atlanta, Georgia, and the Infectious Diseases Society of America meetings in October 2001. He additionally made a site visit to Naval Health Research Center San Diego and the HIV unit of NMCS.

Finally, Maj Govender and Capt Mokgatle of SAMHS were also funded to participate in a meeting sponsored by Family Health International in Accra, Ghana. This meeting initiated development of programs for basic and in-service training, and peer education, as well as monitoring and evaluation through a consensus process among the multidisciplinary and multinational participants.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** None at this time.

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**Population:** The population of Swaziland is estimated to range between 980,000 and 1.1 million. Estimates for average life expectancy vary widely, ranging from 39 to 60 years, and are believed to be reduced significantly due to the HIV/AIDS epidemic.

**Predominant Languages:** English and siSwati are the official languages of Swaziland.

**Literacy Rate:** The literacy rate in Swaziland is estimated to be approximately 76 percent, and is relatively well distributed between the sexes.

**Economy and Gross National Product:** Swaziland is described as a developing nation with a majority of the population (60 percent) still dependent on substance agriculture; per capita income estimates vary significantly, ranging from \$1,300 to \$4,000.

**Military Size:** There are no reliable estimates currently available for the size of military forces in Swaziland.

**Country HIV/AIDS Statistics and Risk Factors:** Swaziland has the second highest HIV/AIDS prevalence rates in Africa, estimated to be over 25 percent of the adult population with either HIV infection or AIDS. The number of people believed to be living with HIV/AIDS is 130,000; 3,800 of those are children under 15 years of age. Identified significant risk factors include high population mobility, high-risk heterosexual contact with both multiple partners and commercial sex workers, and high incidence of sexually transmitted infections. In 1999, HIV prevalence at select sexually transmitted infection clinics in Swaziland was over 50 percent.

Women are at increased risk in Swaziland due to lower socioeconomic status and physiological vulnerability. It is estimated that approximately 52 percent of infected adults in country are women, and selective surveillance of pregnant women has discovered prevalence rates as high as 34 percent.





Youths and children are also significantly affected by HIV/AIDS in Swaziland. The World Health Organization estimates that the cumulative number of youths orphaned in country due to AIDS through the end of 1999 to be 12,000.

**Military HIV/AIDS Information:** The Umbutfo Swaziland Defense Force has not performed systematic screening of personnel, and prevalence statistics are therefore necessarily unavailable. Current forcewide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** None at this time.

**Country Response:** None at this time.

**Direct Assistance From US DoD Program:** None at this time.

**External Contractor-Based Assistance:** Swaziland is the recipient of aid from an external contractor funded by the DoD Program. Medical Care and Development International was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and implement an HIV/AIDS prevention program in conjunction with the Umbutfo Swaziland Defense Force. The program will include assessing risk, behaviors, knowledge, and attitudes of armed forces personnel with regard to HIV/AIDS, implementing prevention strategies (to include public awareness and behavioral change communication initiatives), capacity building within the Swaziland Defense Force to support HIV/AIDS-affected military personnel and dependents, and a program to monitor and evaluate the effectiveness of the prevention program.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts for Swaziland will be coordinated through the Defense Attaché Office, US Embassy, Pretoria, South Africa, and the DoD external contractor, Medical Care and Development International.



## DoD HIV/AIDS Prevention Program

### Annual Country Report: Tanzania

April 11, 2002

#### BACKGROUND

**Population:** The population of Tanzania is estimated to range between 33 and 36 million. Estimates for average life expectancy range from 48 to 52 years.

**Predominant Languages:** Kiswahili, Swahili, and English are all described as official languages of Tanzania, with Arabic and several other local languages also commonly spoken.

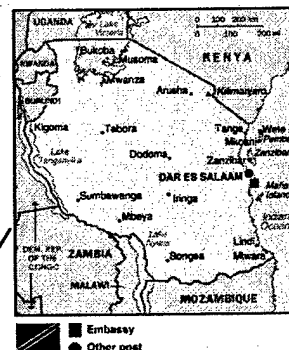
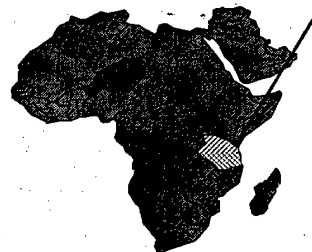
**Literacy Rate:** The literacy rate in Tanzania is estimated to be approximately 68 percent; literacy is distributed disproportionately between males and females, with approximately 79 percent of males and 57 percent of females over age 15 able to read and write.

**Economy and Gross National Product:** Tanzania is one of the poorest countries in the world, with more than 80 percent of the population dependent on substance agriculture; per capita income estimates range from \$210 to \$710.

**Military Size:** There are no reliable estimates currently available for the size of military forces in Tanzania.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence estimates in Tanzania range from approximately 8 percent to 12 percent of the adult population with either HIV infection or AIDS. The number of people estimated to be living with HIV in Tanzania ranges from 1.3 million to 1.5 million.

Of the total number of HIV-infected Tanzanians, 59,000 to 68,000 are children under the age of 15, indicating that youths in Tanzania are at great HIV risk. Researchers have attempted to determine HIV/AIDS-related knowledge, attitudes, and sexual behavior among secondary school and college students to better understand risk factors among Tanzanian youth. Students in one study reported a variety of behaviors associated with increased HIV risk. For example, 26 percent of sexually active boys and 21 percent of sexually active girls reported having sex with multiple partners during the past year. Self-perceived risk of HIV infection was low, however. Only 25.4 percent of students thought themselves at high risk of getting HIV, though a substantially greater percentage of



students (41.3 percent) reported that their friends were at high risk of HIV infection. Many students revealed an anti-condom bias, based on the belief that condoms reduce physical sensation (66 percent), are not safe (51 percent), carry diseases (48 percent), and are objectionable to their sexual partners (37 percent). Nevertheless, 46 percent of the sexually active students (53 percent boys and 36 percent girls) reported that they always use condoms during sex. Interestingly, older students tended to stigmatize condoms more than younger students.<sup>1</sup>

Students identified their major sources of HIV/AIDS information as mass media, followed by friends, religious leaders, parents, and health personnel. Getting information from friends was positively associated with being sexually active and an infrequent condom user. The study's authors emphasized that their results show the importance of continued AIDS education through media and school curricula, particularly targeted toward reducing students' strong anti-condom biases.<sup>1</sup>

Women are at increased risk in Tanzania due to lower socioeconomic status and physiological vulnerability. It is estimated that nearly 56 percent of infected adults in country are women, and selective surveillance of pregnant women has discovered prevalence rates as high as 33 percent. Female bar workers who double as commercial sex workers are believed to be among the Tanzanian women at greatest risk for HIV. An anthropological study conducted among female bar workers in Magu District, northwest Tanzania, demonstrated that most participants have one regular paying sexual partner and varying numbers of casual paying partners. Notably, the women more often demanded condom use with casual partners than with regular ones. The lack of condom use with regular partners is of concern because most such individuals are married, often have itinerant jobs (truck drivers, salesmen), and probably have other regular paid partners along their routes.<sup>2</sup>

Youths and children are also significantly affected by HIV/AIDS in Tanzania. Between 50,000 and 60,000 children are born HIV positive each year in Tanzania. In addition, the World Health Organization estimates that the cumulative number of youths orphaned in country due to AIDS through the end of 1999 to be 1.1 million.

Tanzania has been the site of an innovative HIV/AIDS prevention approach in the form of an entertainment-education radio soap opera, *Twende ne Wakati* (Let's Go With the Times). The soap opera was broadcast in Swahili twice per week for 30 minutes from 1993 through 1999 and promoted family planning, gender equity, and health themes, including HIV prevention. A thorough evaluation of *Twende ne Wakati* showed that it stimulated adoption of HIV/AIDS prevention behaviors in the broadcasting area. Moreover, the soap opera generated conversations among listeners about HIV/AIDS and further diffused HIV/AIDS prevention information. *Twende ne Wakati* emphasized social cognitive dimensions rather than just facts about HIV/AIDS, which is believed to have contributed to its success in achieving behavioral change among listeners in Tanzania.<sup>3</sup>

**Military HIV/AIDS Information:** Tanzanian Defense Forces have not performed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current forcewide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** Program staff members will travel to Tanzania in February 2002 to take part in a Marine Corps Forces Europe exercise in coordination with several other African countries. During this time, staff members will attempt to coordinate meetings with Tanzania military HIV/AIDS prevention representatives, describe the program and resource assistance opportunities, and solicit their prevention plan to facilitate future military-to-military assistance.

**Country Response:** None at this time.

**Direct Assistance From US DoD Program:** None at this time.

**External Contractor-Based Assistance:** Tanzania is the recipient of aid from an external contractor funded by the DoD Program. Regents University, Virginia Beach, Virginia, was awarded a grant by the DoD HIV/AIDS Prevention Program to develop and distribute a short film to increase adoption of HIV/AIDS prevention attitudes, beliefs, and behaviors among English-speaking military personnel in Tanzania. In addition, Regents University will train military health educators to use the film effectively to promote HIV/AIDS prevention.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts will be coordinated through the Defense Attaché Office, US Embassy Tanzania, as well as through the DoD external contractor, Regents University.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Togo

April 11, 2002

#### BACKGROUND

**Population:** The population of Togo is estimated to range between 3.9 million and 5.1 million. Estimates for average life expectancy range from 49 to 54 years.

**Predominant Languages:** French is the official language of Togo, with Ewe, Mina, Kabye, and Dagomba the indigenous languages most commonly spoken.

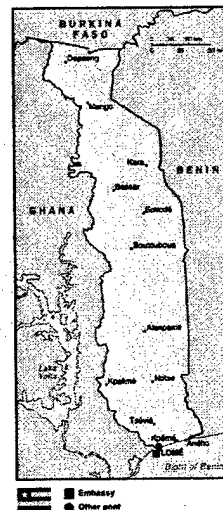
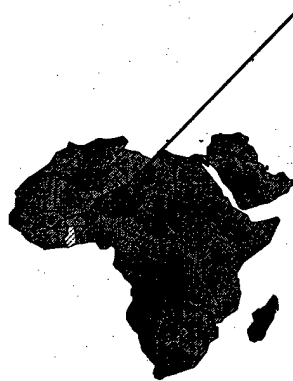
**Literacy Rate:** The literacy rate in Togo is estimated to be approximately 52 percent; literacy is distributed disproportionately between males and females, with approximately 67 percent of males and 37 percent of females over age 15 able to read and write.

**Economy and Gross National Product:** Togo has a developing economy typical of sub-Saharan Africa, with 65 percent of the workforce engaged in subsistence agriculture; per capita income estimates range from \$340 to \$1,500.

**Military Size:** There are no reliable estimates currently available for the size of Togolese Armed Forces.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in Togo is estimated to range from 6 percent to 8.5 percent of the adult population with either HIV infection or AIDS. The number of people estimated to be living with HIV in Togo is 130,000; of those, 6,300 are children under the age of 15. Identified significant risk factors include a high prevalence of sexually transmitted infections and high-risk heterosexual contact with multiple partners.

Research with university students in Togo indicates a considerable discrepancy between students' HIV/AIDS knowledge and their behavior. High-risk behaviors (e.g., multiple sexual partners, anal and oral sex, and intravenous drug use) were widely admitted despite the fact that participants' HIV/AIDS knowledge was relatively high and comparable across genders, age groups, and levels of education. The frequency of condom use among students varied strongly as a function of both age and sex. Participants 19 years of age or younger reported using condoms 10 to 20 percent of the



time, primarily with occasional partners. Those ages 20 to 29 reported having multiple partners, and used condoms for more than 30 percent of sexual encounters. Students over age 30 typically reported having a primary partner and a variety of additional less frequent partners, and utilized condoms 0 to 20 percent of the time. Overall, significantly more men than women reported regular condom use (40.5 percent vs. 22.7 percent). According to the study's authors, the assumption that highly educated university students should have less risky behavior than the general population was not borne out, since student behavior was not significantly different from that of young people living on the streets of Lomé, the capital of Togo.<sup>1</sup>

Women are at increased risk in Togo due to lower socioeconomic status and physiological vulnerability. It is estimated that 55 percent of infected adults in country are women.

Youths and children are also significantly affected by HIV/AIDS in Togo. The World Health Organization estimates that the cumulative number of youths orphaned in country due to AIDS through the end of 1999 to be 95,000.

**Military HIV/AIDS Information:** Togolese Armed Forces have not performed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current forcewide rates are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** None at this time.

**Country Response:** None at this time.

**Direct Assistance From US DoD Program:** None at this time.

**External Contractor-Based Assistance:** Togo is the recipient of aid from an external contractor funded by the DoD Program. Population Services International was awarded a grant by the DoD HIV/AIDS Prevention Program to develop a comprehensive HIV prevention program within the Togolese military. Outlined objectives included development of a soldier peer education network to provide high quality information about prevention and transmission, and a system for condom distribution.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** Any future military-to-military efforts will be coordinated through the Defense Attaché Office, US Embassy Togo, as well as the DoD external contractor, Population Services International.

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## DoD HIV/AIDS Prevention Program

### Annual Country Report: Uganda

April 11, 2002

#### BACKGROUND

**Population:** The population of Uganda is estimated to range between 21 million and 24 million. Average life expectancy is estimated to be 43 years, down more than 20 percent due to the HIV/AIDS epidemic.

**Predominant Languages:** English is the official language of Uganda, with Ganda or Luganda, Swahili, and Arabic also commonly spoken.

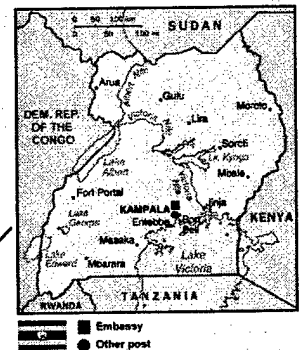
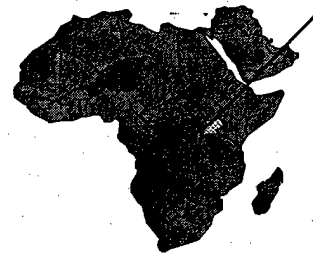
**Literacy Rate:** The literacy rate in Uganda is estimated to be approximately 62 percent; literacy is distributed disproportionately between males and females, with approximately 74 percent of males and 50 percent of females over 15 years of age able to read and write.

**Economy and Gross National Product:** Uganda is described as a country with substantial natural resources and a developing economy; agriculture continues to employ 80 percent of the workforce and per capita income estimates range from \$330 to \$1,100.

**Military Size:** Ugandan military size is estimated at approximately 40,000.

**Country HIV/AIDS Statistics and Risk Factors:** HIV/AIDS prevalence in Uganda is estimated to range from 8.3 percent to 10 percent of the adult population with either HIV infection or AIDS. The number of people estimated to be living with HIV in Uganda ranges from 820,000 to 1.5 million; of those, at least 53,000 are children under the age of 15. The World Health Organization estimates that the cumulative number of youth orphaned in country due to AIDS was approximately 1.7 million as of December 1999. Identified significant risk factors include a high prevalence of sexually transmitted infections (STI) and high-risk heterosexual contact with multiple partners.

Women are at increased risk in Uganda due to lower socio-economic status and physiological vulnerability. It is estimated that nearly 55 percent of infected adults in country are women. Given women's lack of power in sub-Saharan Africa and their inability to insist upon condom use, there have been frequent calls for female-controlled methods of HIV prevention. Accordingly, a series of focus groups was conducted among women in Southwestern Uganda to investigate their possible preferences for female-





controlled prevention methods versus male condoms. The results of this study demonstrated that Ugandan women in general would welcome female-control methods of HIV/STI prevention, especially foaming sponges, tablets, gel, and films. However, while female condoms were perceived as an improvement over male condoms, they were also seen as having limited value because they still require the male partner's consent. Many serious misconceptions about male condoms also emerged in the study. For example, some women thought that condoms were porous or impregnated with HIV, while others believed that condoms can slip off the penis during sex and enter the woman's uterus. Such misconceptions represent major barriers to the more widespread use of condoms and highlight the need for further education and prevention efforts.<sup>1</sup>

Sentinel surveillance at antenatal centers in Western Uganda indicates that HIV has declined among young women, especially in the 15-19 year age-group. A significant decrease of HIV risk for women with secondary education was also observed over time. The authors suggest that these results are attributable to extensive HIV/AIDS prevention programs leading to positive behavior changes.<sup>2</sup> Consistent with the preceding conclusion, certain interventions in Uganda have been shown to successfully increase HIV/AIDS knowledge, positively influence attitudes towards HIV-positive people, and induce changes in sexual behavior.<sup>3</sup> However, some reviewers argue that existing programs have not done enough to increase women's access to information, provide explanations for the asymptomatic stages of HIV infection, or to enhance social marketing of condoms.<sup>3</sup>

Long distance truck drivers and commercial sex workers (CSWs) have been implicated in the spread of HIV in Uganda as well as other parts of Africa, and a recent study provided insights into their networks, middlemen, and sexual cultures. Middlemen (who are paid a gratuity for their services) act as intermediaries: They buy goods from the drivers and introduce them to "suitable" women with whom truck drivers can have casual sex. Truck drivers value the middlemen because they believe that are able to find trustworthy, HIV-negative women for a sexual encounter. CSWs also prefer to find clients through middlemen because middlemen can help ensure payment from the driver. Moreover, middlemen often serve as interpreters and save negotiation time for both parties. The belief that middlemen can find "safe" women is worrisome to public health officials because it suggests that truck drivers are unaware that an individual can be HIV-positive without any observable symptoms. Given the key role that middlemen play in the commercial sex trade, the authors suggest that middlemen can form the hub of a Ugandan intervention program that provides truck drivers and CSWs with condoms and emphasizes the importance of their use, provides information about HIV and STI, and refers drivers and CSWs for HIV counseling and testing.<sup>4</sup>

**Military HIV/AIDS Information:** Ugandan People's Defense Forces (UPDF) have not preformed systematic screening of personnel, and prevalence statistics are therefore unavailable. Notable military specific risk factors in Uganda are prolonged deployments lasting up to three years and the frequent practice of having multiple wives/girlfriends.

Current force wide rates in Uganda are believed to be somewhat higher than those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** On 30 July - 02 August 2001, Program staff visited Kampala for the purpose of an in-country assessment. Program staff met with Capt Telegunde, Sgt Walter, Chairman Uganda People's Defense Force Post-Test Club, Dr. Kalindu, head of HIV Clinical Care, and Dr. Phillips (US Army research program Kampala) to discuss the current status of in country HIV prevention efforts. Components discussed included their 'Post-Test Club' approach, which incorporates health talks, members days, outreach public speaking, dramas, on-on-one counseling, and home visits. Program staff also met with Mr. Ross, Public Health Administrator, Centers for Disease Control (CDC), and received a overview of CDC activities in Uganda. In addition, Staff met with Dr. Apuuli, Director General, Uganda AIDS Council, Mr. Ndawula, Chief of Medical Services, UPDF, and Lt Rwanyonga, AIDS Control Program Officer.

**Country Response:** UPDF presented the DoD Program a plan called Strengthening HIV/AIDS Prevention, Care and Support in the Uganda People's Defense Forces. Outlined objectives included capacity building for counseling, establishment of 12 VCTs, creation of recreational facilities in existing Post-Test Clubs, and enhanced HIV/AIDS training for nurses and health care providers.

**Direct Assistance From US DoD Program:** The Program has provided funding to the US Embassy in Kampala to begin supporting the UPDF efforts. In addition office support equipment has been provided directly to the UPDF to enable the development of an infrastructure to establish a internal HIV/AIDS program.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** The Program efforts for the UPDF are being coordinated with the CDC, United States Agency for International Development, and the US Army HIV/AIDS research program in Kampala.

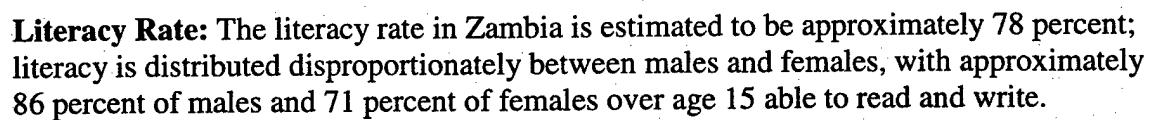
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4. Gysels M, Pool R, Bwanika K. Truck drivers, middlemen and commercial sex workers: AIDS and the mediation of sex in south west Uganda. *AIDS Care.* 2001; 13(3): 373-85.



**Population:** The population of Zambia is estimated to range between 8.9 million and 10.2 million. Life expectancy estimates range from 37 to 40 years, down significantly due to the HIV/AIDS epidemic.



**Economy and Gross National Product:** Zambia is described as one of the most urbanized countries in sub-Saharan Africa, with almost 50 percent of the population living in a few urban areas clustered along the principal transportation corridor. One consequence of this population distribution pattern is widespread unemployment and poverty; annual per capita estimates for Zambia range from \$270 to \$880.

**Military Size:** The size of the Zambian military is estimated to be approximately 27,000.

**Country HIV/AIDS Statistics and Risk Factors:** With 20 percent of the adult population with either HIV infection or AIDS, Zambia has one of the worst HIV/AIDS epidemics in the world. The number of people estimated to be living with HIV ranges from 870,000 to 1.2 million; of those, at least 40,000 are children under the age of 15. Identified significant risk factors include a high prevalence of sexually transmitted infections, high-risk heterosexual contact with multiple partners, perinatal transmission, significant cultural stigmatization of people with HIV or AIDS, and specific cultural practices.

One **Zambian** cultural practice associated with the spread of HIV/AIDS is ritual sexual intercourse with a deceased person's spouse to chase the spirit of the dead away from the living partner. This is viewed as an act of cleansing, and the person who performs the ritual sexual act is traditionally expected to wed or "inherit" the decedent's spouse in a process known as levitate marriage. Recent anthropological research indicates that the

majority of Zambians are abandoning traditional sexual cleansing because they fear HIV/AIDS, and instead turning to alternative, nonsexual rituals that involve little or no risk of HIV transmission. Such alternative practices include sliding (or "thigh-brushing") over a woman or man, use of herbs and roots, and trimming or cutting off the hair of the living spouse. Some investigators suggest that these and other alternative cleansing rituals should be actively promoted through partnerships between health officials, churches, and community leaders.<sup>1</sup> Still, some other researchers argue that it is ultimately ineffective to fight against traditional cultural practices. Rather, they argue that it is more beneficial to promote condom use or blood testing than to discourage levitate marriage.<sup>2</sup>

Women are at increased risk in Zambia due to lower socio-economic status and physiological vulnerability, and are typically infected at much younger ages than men. It is estimated that nearly 55 percent of infected adults in country are women.

Youth and children are also significantly affected by HIV/AIDS in Zambia. The World Health Organization estimates that the cumulative number of youth orphaned in country due to AIDS through the end of 1999 to be 650,000, and between 30 to 40 percent of infants born to HIV-positive mothers become HIV-positive themselves.

Zambian trends in AIDS-related knowledge and behavior were recently investigated using data from cross-sectional surveys conducted in 1990, 1992, 1996, and 1998. Several positive changes emerged over the entire period of 1990-1998, including increased proportions of both men and women who know that HIV-infected individuals can appear healthy, increases in sexual abstinence, and fewer men reporting multiple sexual partnerships. However, from 1996 to 1998 there was a decreased proportion of women and men aware that AIDS is preventable, and a decreased proportion of condom use for both men and women. One interpretation of these results is that Zambian AIDS prevention and education campaigns had a positive impact in the early 1990s, but have since stagnated.<sup>3</sup>

**Military HIV/AIDS Information:** Zambian Defense Forces (ZDF) have not preformed systematic screening of personnel, and prevalence statistics are therefore unavailable. Current force wide rates in Zambia are believed to be similar to those found in the civilian population.

## **ACTIONS TAKEN**

**Contacts by Program Staff:** On 11 - 13 January 2000, Program staff visited Lusaka, Zambia, for the purpose of an in country assessment. Program staff met with Col Puta, Medical Service HIV/AIDS Coordinator for ZDF, Mr. Nelson, Centers for Disease Control, Capt Luhana, Army Focal Point, Maj Piriss, Chaplain Corps, and LtCol Akadelwa to discuss the current status of in country HIV prevention efforts. ZDF face several obstacles, including a lack of resources (drugs, screening capability, and counselors), and have no HIV policy in place. Program staff also met with Ms. Hughes,

Deputy Director for the Zambian United States Agency for International Development (USAID) Population Health and Nutrition Office and received an overview of USAID activities in Zambia. In addition, Staff traveled to the Natural Remedy Center in Kafue, Zambia to review their program.

Program staff traveled to Accra, Ghana 26 February - 2 March 2001 to participate in the Working Group for the Development of a Comprehensive HIV Prevention Package for the Uniformed Services of Africa. As part of their visit, they met with Col Puta, Medical Services HIV/AIDS Coordinator for ZDF, where they were briefed on several social marketing campaigns being conducted in Zambia, including 'Know and Guard Your - Status' and 'Take Cover' condom promotion campaigns. Other programs included campaigns titled 'The Enemy Within' and 'Don't Take it Home.'

**Country Response:** None yet, Program is awaiting receipt of the Zambian country proposal.

**Direct Assistance From US DoD Program:** A plan for HIV/AIDS has still not been submitted by the Zambian Defense forces. In an effort to support the development of this plan, office support equipment has been provided by the Program.

**External Contractor-Based Assistance:** None at this time.

**Coordination With Other In-Country HIV/AIDS Prevention Efforts:** None at this time.

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# REPORT DOCUMENTATION PAGE

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<b>14. ABSTRACT (maximum 200 words)</b> The Naval Health Research Center serves as the U.S. Department of Defense (DoD) Executive Agent for the DoD HIV/AIDS Prevention Program in Africa. This joint services program focuses on African uniformed personnel and complements US Agency for International Development and Centers for Disease Control initiatives to mitigate the African HIV/AIDS pandemic. The current report summarizes in-country progress for the 22 African nations engaged by the program as of April 2002.					
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